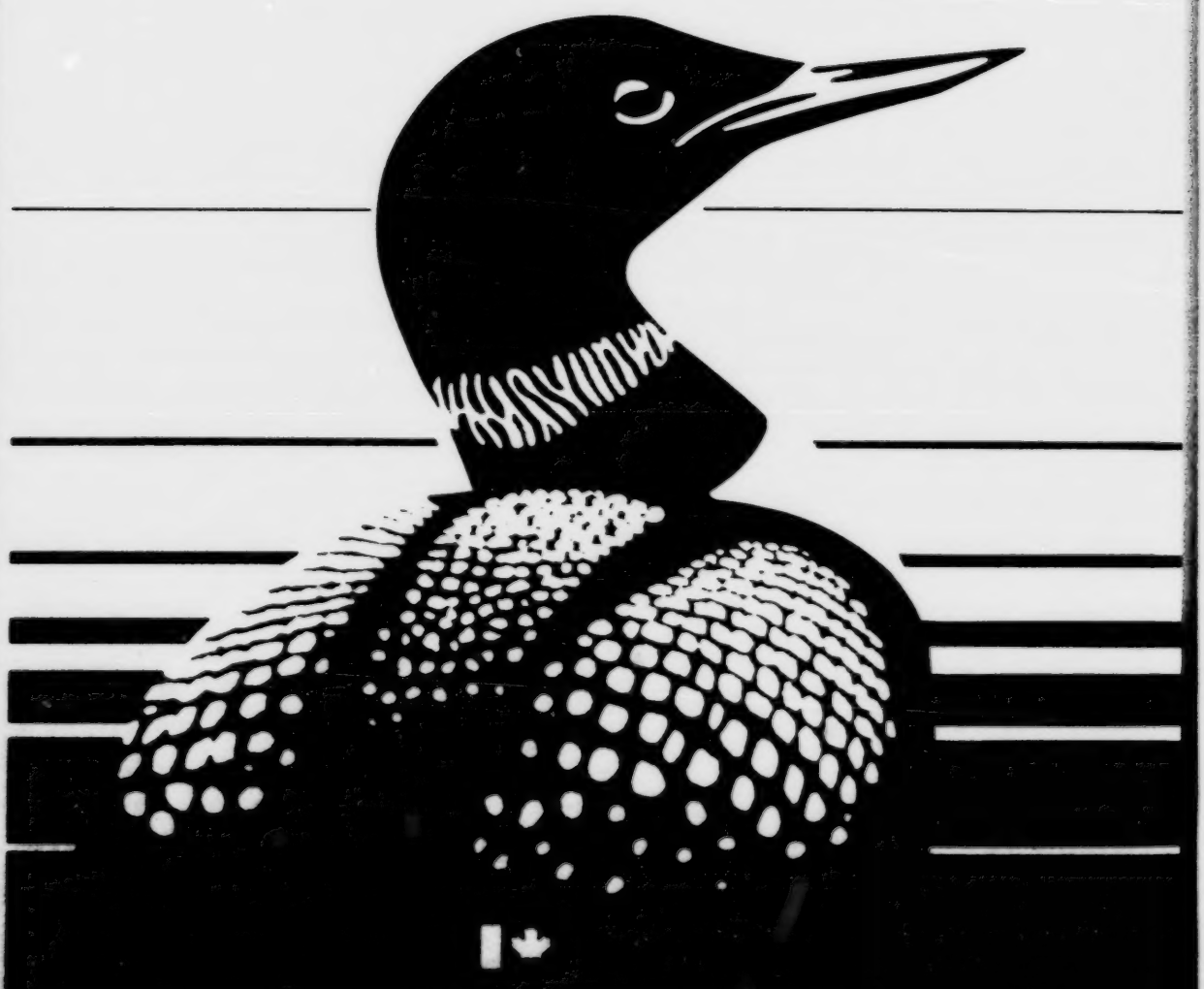
A REVIEW OF LEGISLATION TO DETERMINE ITS EFFECTS ON MIGRATORY BIRD HABITAT



A REVIEW OF LEGISLATION TO DETERMINE ITS EFFECTS ON MIGRATORY BIRD HABITAT

HABITAT MANAGEMENT SECTION

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FOREWORD

This document represents the first phase of a series of reports being prepared by Canadian Wildlife Service to provide a better understanding of federal and provincial legislation and associated policies and programs that result in habitat losses, particularly for migratory birds. Since agricultural activities have historically had the greatest impact on migratory bird habitat, emphasis has been placed on reviewing federal and provincial agricultural legislation, policies and programs.

The purpose of this document is to serve as a reference source of legislation, policies and programs which have had the most detrimental effect on maintaining habitat in the prairie provinces. It is hoped that this type of background information will enable resource agencies to better plan for the protection of habitat in prairie Canada.

INTRODUCTION

Under the terms of the Resource Transfer Act (1930), the federal government has sovereignty over Indian lands, national parks, migratory birds and the export of natural resources. The provinces exercise jurisdiction over public lands and forests, minerals, oil, natural gas, most recreational resources and non-migratory wildlife. Areas of jurisdiction shared by Canada and the provinces include agriculture, fisheries and water resources.

Section 95 of the British North America (BNA) Act provides for dual authority of federal and provincial governments over agriculture.

It states:

"In each province the legislature may make laws in relation to agriculture in the province and to immigration into the province and it is hereby declared that the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces and to immigration into all or any of the provinces; and any law of the legislature of a province relative to agriculture or to immigration shall have effect in and for the province as long as for only as it is not repugnant to any act of the Parliament of Canada."

Federal legislation powers are used primarily to create institutions -- marketing, transportation and funding agencies which have a secondary or indirect impact on habitat. In contrast, provincial legislation tends to be aimed primarily at specific resource or land-use.

A preliminary review of the legislation indicated extensive differences between provinces. Therefore, it was decided to consider each province individually. Legislation is discussed on an individual basis because many programs under legislative acts had both direct and indirect effects on private and Crown land habitat. Where possible, ways of ameliorating the impact of these activities are discussed.

This revised report covers legislation, programs and policies up to 1978.

MANITOBA LEGISLATION AND PROGRAMS

Manitoba has 8.0 million hectares (ha) of Canada Land Inventory (CLI) Class 1-4 Agricultural land of which 5.4 million ha is in Classes 1-3. Total improved land accounts for 5.1 million ha with 2.9 million ha of potentially arable unimproved land. This represents 36 percent of the arable land base (Shields and Nowland 1975). Most of this unimproved land is currently Crown land and is located in the Interlake and Westlake regions of Manitoba. It is estimated that in the Interlake Region alone 1.9 million ha of CLI Agriculture Capability Class 3 and 4 lands have the potential of increasing field crop production by 35-40 percent. An additional 3.4 million ha of CLI Agriculture Capability Class 5 and 6 lands are available in Manitoba for pasture development. Furthermore, 5 million ha of organic soils also have potential for pasture development (Shields and Nowland 1975). The Provincial Department of Agriculture (DA) administers the use of Crown lands, however, control of lands remains vested in the Department of Mines, Natural Resources and Environment (DMNR&E).

The relative importance of agriculture in Manitoba is greater than in any other province except Saskatchewan and Prince Edward Island. Manitoba Agriculture, through its policies and programs, has attempted to expand farm output, stabilize farm income and increase the viability of low-and-middle-income farmers which comprise 75 percent of Manitoba farmers. Although the overall objective of Manitoba's land-use policies is to provide for human needs, economic opportunities and a rational allocation of lands, 9 of 13 policies give priority to agriculture.

In Manitoba the acts administered by the DA as related to land use and financial assistance are:

Department of Agriculture Act

Agricultural Productivity Council Act

Agricultural Credit Corporation Act

Crop Insurance Act

Gasoline Tax Act

Seed and Fodder Relief Act

Agricultural Societies Act

Land Rehabilitation Act

Resource Conservation Districts Act

Planning Act

Water Rights Act

Water Resources Administration Act

Municipal Act

1. Department of Agriculture Act

This Act establishes the department and permits the minister to collect and disseminate statistics relating to agriculture, conduct extension, acquire agricultural land and enter into joint agreements with the Government of Canada, other provinces, municipalities and other public bodies. Total budget in 1978 for the DA was $33.7 million.

2. Agricultural Productivity Council Act

The Act establishes the Productivity Council as an advisory agent of the government to further the development of the agricultural

industry in Manitoba. The objectives of the Council are defined as follows:

i) definition of goals and objectives on agriculture and means of achieving them;

ii) consideration of obstacles impeding agricultural productivity and the development of means for overcoming them;

iii) examination of factors affecting the cost of production and productivity and competitive ability of the agricultural industry in Manitoba;

iv) analysis and development of proposals calculated to benefit the agricultural industry; and

v) examination and development of means available to achieve further development of the agricultural industry.

The following programs are administered under the Act:

(1) Planning and Management Program

The Planning Secretariat develops the policy and program thrusts of the DA. They also provide for the negotiation, coordination and analysis of federal-provincial and interdepartmental plans and agreements and provide public information services related to agricultural programs and policies.

The Planning and Management Program provides for agricultural research by the Faculty of Agriculture, University of Manitoba. Research is priorized in consultation with the DA, agribusiness and Manitoba farmers. A total of $700,000 was allocated for 120 research projects in 1978. Agricultural research indirectly affects habitat losses on private land through increased efficiency of farming

operations. Habitat gains are minimal through agricultural research, i.e., zero tillage.

Certain aspects, i.e., continuous cropping, decreasing summerfallow acreages and zero tillage should be actively supported by CWS because they promote better land-use practices. Better land-use practices may ultimately result in some habitat gains for migratory birds.

The Communications Branch prepared a total of 279 press releases as well as 46 internal "Intercom" releases. A total of 71 publications were produced of which 16 were new publications, 19 were revisions and 27 were reprints. Approximately 343,106 publications were distributed to farmers.

Three daily radio programs were produced for broadcast on all rural stations. Twenty-two half-hour TV programs were produced and telecast on CKY-TV as well as seven half-hour programs which were produced and telecast for CKND-TV. In Manitoba, the total budget for all extension programs in 1978 was $7.8 million.

Effective extension programs relating to agriculture result in indirect losses to habitat on private lands because the emphasis is to increase productivity. Agricultural productivity is a function of land base -- the more cultivated acres, the greater the gross income.

CWS could provide seminars and participate more closely with the DA in their extension program to point out benefits or disbenefits of certain land-use practices on wildlife habitat. CWS could present seminars on how landowners may improve their land for migratory birds and other wildlife.

(2) Farm Management Program

This program's objectives are to improve the stability of the agriculture industry and increase farm income through the improvement of farm management by providing advisory services to the Manitoba Agricultural Credit Corporation (MACC) and Small Farm Development referrals (a Federal-Provincial Program).

The Farm Management Program administers the Manitoba Beef Producer's Income Assurance Plan. This plan was initiated in 1975 to assure participants continuity of income and encourage cattle finishing.

The federal government also has a cow/calf stabilization plan which operates independently of provincial programs. Producers may only opt for one plan. In 1977 the cow/calf subsidy totalled $6.5 million of which Manitoba paid $5.1 million under its program while the federal government paid $1.4 million. Since the program was initiated, a total of $38.7 million has been paid to Manitoba beef producers.

The only current provincial agricultural program which has a direct impact on habitat is the Manitoba Beef Producer's Income Assurance Plan. With the stabilization of income to beef producers, the livestock industry has been able to expand in Manitoba. The effect of this program on habitat is twofold. First, habitat destruction is accelerated on private land because of the added requirement for additional feed grains for finishing cattle. As a consequence, more land is brought into cereal grain production. Second, and probably the gratest effect of this program, is the improvement of Crown land for additional pasture and forage production. It is estimated that private land pastures comprise less than three-fourths of a quarter section of

entire land holdings per farm. This is insufficient to support the current level of livestock production in mixed farming areas of Manitoba. Federal-provincial programs have been implemented to expedite the conversion of marginal lands to pasture and forage production.

Private landowners who raised livestock on CLI Agricultural Capability Class 2, 3 and 4 lands have long since converted to cereal grain farming because:

(a) the livestock industry is labour intensive relative to cereal grain production, and

(b) economic gain (net income) is greater in cereal grain production because this segment of the agricultural industry is much more stable than the livestock production segment.

Two factors govern the rate at which private agricultural lands are brought into production:

(a) the price of grain, and

(b) the Income Tax Act (also discussed in the federal legislation section).

On private lands economic conditions dictate the rate at which lands are developed. Generally speaking, as wheat approaches $6/bu there is sufficient economic incentive for farmers to break pastures, and clear and drain land for wheat production.

The Income Tax Act provides for the <u>complete</u> deduction of development costs incurred for bringing land into production, i.e., clearing and draining.

The most effective means of influencing habitat loss through legislation would be to remove the tax deduction that farmers now

enjoy for clearing, breaking and draining lands. The Income Tax Act could be amended to read that all lands with the exception of CLI Agricultural Capability Class 5 and 6 lands may be broken and cleared and all costs are elibible as an expense deduction.

An alternative which CWS could consider is to provide an incentive program that permits farmers to retain habitat on private land. This program could be similar to the one recently adopted in Minnesota which exempts landowners from paying taxes on wetlands (J. Serie, USFWS, pers. comm. 1979).

Another alternative is to provide a paid easement program to maintain habitat on private lands as described by Colpitts (1974). The current provincial wildlife policy favours this as an alternative method to land acquisition for securing habitat for wildlife and migratory birds.

(3) Crop Production Program

The program objectives are to increase crop efficiency and output related to expansion of the livestock industry and increase special crop production outputs in relation to special crop processing and export market development. Under the Crop Production Program, there are twelve grassland demonstration projects throughout the province. There are about 1,600 members in the province's grassland societies. The DA absorbs the cost of management and direction of these projects.

There are no direct subsidies under this program. The DA provides servces, i.e., soil testings, conducts field trials of new varieties of crops, tillage methods and inspections. Total budget for this program was $1.7 million for 1978.

Administered under the Crop Production Program was the Farm Management Program. This was a federal-provincial Farm Diversification Program (FDP) which commenced in 1972 and terminated in December 1978. The objectives of the FDP were to increase incomes of lower to middle income farmers through upgrading of managerial skills, diversification and/or expansion in livestock products.

Manitoba participants in the FDP were eligible for a maximum loan of $10,000 from the MACC. Loans could be applied to the purchase of livestock, buildings and machinery. In 1977, a total of 119 loans were approved totalling $883,916. Likewise, grants were available to FDP participants. Grants were to be used for a variety of purposes including renovation of buildings, construction of new facilities and equipment. A total of 1,227 grants were approved totalling $813,173.

(4) Programs under the Agricultural Crown Lands Section

The Crown Lands Section administers the agricultural use of Crown lands. This Section identifies lands that have agricultural uses, both present and potential; improves their productivity; and administers the disposition of Crown lands.

In 1977, 1.9 million acres (768,930 ha) of Crown land were designated for agricultural use and a total of 5,208 permits and leases issued. A Lifetime Forage Program was announced in 1977 to replace existing renewable leases. A total of 2,562 leases were issued. Through the Crown Land Improvement Program, 417 applications for lease improvements were approved for a total cost of $572,416 to the DA. Improvements on 60 leases were purchased by lessees for $35,000. New land development and improvement techniques were investigated, i.e.,

aerial spraying of trees on Crown lands indicated a four-fold increase in native grassland production. Community pastures operated by the Prairie Farm Rehabilitation Administration (PFRA) under federal-provincial agreement carried 53,257 head of cattle. The rated carrying capacity of the pastures was 42,800. There are seven Co-op pastures in Manitoba.

The Minister of Agriculture recently announced a program whereby previously leased agricultural Crown lands will be sold to former lessees. It is currently proposed that land can only be purchased by lessees who have used the land a minimum of 3 years. After lessees submit application for purchase, lands will be evaluated by various provincial committees as to other potential uses. What influence these committees will have is unknown.

Provincial government policies regarding the economic development of Manitoba promote private ownership. It is safe to assume that further habitat losses to migratory birds will result in Manitoba because of the disposition of Crown land.

CWS could, to a degree, influence this loss of habitat by requesting membership on the review committes. It is important to remember that DMNR&E will continue to exert an influence on Crown land development for agriculture as long as it remains Crown land. Once land is in private ownership, it is the owner who dictates what the land use will be, not a resource agency.

Because of Manitoba's agricultural policies and demands by other resource users such as recreation and forestry, Manitoba established the Crown Land Classification Committee (CLCC). The purpose of this committee is to resolve the use conflicts in the allocation of Crown

land. The CLCC is composed of two members of DMNR&E, two members of the DA and one person from Municipal Affairs.

The specific terms of reference of this committee are:

(1) to recommend policy and set up procedures and methodology to solve land-use conflicts,

(2) to resolve ongoing daily problems in land use, and

(3) to keep the ministers of Agriculture and DMNR&E more aware of problems in land use.

In southwestern Manitoba where the ratio of Crown land to private land is small, some priority should be given to wildlife. If CWS were to fund a program for habitat development or retention in southwestern Manitoba it should concentrate in municipalities with little or no Crown land.

Although the DA administers the agricultural use of Crown lands, the control of the land remains vested in DMNR&E. Thus, the DA requests "permission" from DMNR&E to designate the type and extent of use and development that the DA can authorize.

The CLCC has set up Block Planning Committees (BPC) to develop maps which show how Crown land will be allocated between all resource users. If an impass is reached as to the allocation of Crown land use, the problem is forwarded to the CLCC. However, the CLCC prefers compromise to confrontation.

Provincial biologists have been participating in BPC and have made significant gains for migratory bird habitat adjacent to Shoal Lakes and Whitemouth Lake.

CWS could influence Crown land use by volunteering their services to DMNR&E to help designate habitat areas that are important to

migratory birds. A further contribution by CWS would be active habitat enhancement of Crown lands designated for wildlife use by DMNR&E.

3. Agricultural Credit Corporation Act

This Act establishes the Manitoba Agricultural Credit Corporation (MACC) which may make loans to and provide a complete line of credit to farmers to assist in:

(1) diversifying farming operations,

(2) carrying on or improving farming operations,

(3) relocating farmers on new lands so they can better carry out their farming operation, and

(4) establishing or developing farming operations which will assist other farmers in their farming operations.

In addition to providing loans, the MACC guarantees loans and purchases land which it in turn leases or sells to farmers.

The annual capital budget for the MACC is $2.0 million. Sixty to 70 percent of this capital is used by the Corporation to acquire land, 10 percent is used for land improvement (clearing, draining and breaking new land) and 30 to 40 percent for acquisition of machinery and buildings. The Corporation guarantees loans valued at $40.0 million annually to farmers. The default rate on loans is .023 percent (G. Anderson, MACC, pers. comm. 1979). Roughly $200,000 is provided annually through the MACC for land improvement to private individuals. It is unknown what proportion of the $40 million is used for land improvement. This Act is complemented by a federal statute — The Farm Credit Act.

4. Crop Insurance Act

This Act provides all risk insurance of specified crops. The working capital maximum, $2.0 million, is provided by the Manitoba Government which also pays all administrative costs of the program. Farmers contribute 50 percent of the premiums for insurance coverage. The remaining 50 percent of the premiums is provided by the federal government. In 1977, 14,600 farmers paid $11.2 million in premiums for crop insurance. The federal government matched these premiums. In effect, the federal government subsidized Manitoba farmers $11.2 million.

5. Gasoline Tax Act

The Gasoline Tax Act provides for the imposition of $.18/gal tax on gasoline and $.21/gal on diesel fuel. Fuel used for the operation of agricultural machinery is exempt from this tax. The total subsidy to farmers in 1978 was $19.4 million.

Another rebate, available to farmers but not restricted to farmers, is the $.07/gal rebate of federal excise taxes on diesel fuel and gasoline. If we assume that rebates were claimed for all fuel used, this amounts to $6.9 million.

6. Seed and Fodder Relief Act

The Act provides for the purchase and distribution of seed and fodder in an organized territory. The DA pays all transportation and other charges. This Act was used in 1976 to transport feed to the Interlake and Westlake areas in Manitoba. This is an indirect subsidy to farmers in drought years.

Another type of indirect subsidy to farmers is provided under terms of the Water Services Board Act. The DA through its Technical Service Branch administers the Water Service Board Program. In 1978, 1,561 applicants received grants totalling $289,861 for the purchase of on-farm water and sewage systems. A total of 3,654 applications for technical assistance were answered.

7. Agricultural Societies Act

This Act permits the formation of agricultural societies which promote the improvement of agriculture. Grants are provided by the minister.

In Manitoba, capital grants totalling $180,000 were provided to agricultural societies. Prize money for fairs totalled $156,000. Support grants for the maintenance of facilities totalled $80,000 and miscellaneous grants totalled $40,000 for a grand total of $450,000 in 1978.

The degree of support provided to agricultural societies indicates the extent of the importance of agriculture in the province. These societies indirectly influence land use through their activities. Most other societies have to fund activities and programs through the collection of dues and various fund raising activities. Since the agricultural societies are supported by government grants, the viability of these societies is assured.

Several societies in Manitoba sponsor conservation oriented projects. CWS could take an active role in these projects by providing their expertise to guide these projects as well as providing some minor funding to generate interest in these projects.

8. Land Rehabilitation Act

This Act empowers the municipal governments to secure the rehabilitation and development of agricultural areas within the municipality and to develop within the area systems of farm practice, tree culture, water supply, land utilization and land settlement. Through the enactment of bylaws, municipalities can regulate and control farming practices that cause soil deterioration by wind and water erosion.

9. Resource Conservation Districts Act

This Act authorizes the establishment of resouce conservation districts and in each respect a Board. Conservation districts are established to control, develop, protect and restore:

(a) land and soil in the district, and

(b) forest, wildlife and recreation sources.

The Board is empowered:

(1) to develop systems of farm practice and land utilization,

(2) develop farm and local water supplies,

(3) to retire land to permanent or temporary forage, and

(4) to adopt practices to prevent soil deterioration.

Through the enactment of municipal bylaws, Board recommendations are either approved or disapproved.

There are five resource conservation districts in Manitoba. Under terms of the Resource Conservation Districts Act, the District Board has authority over all water management within the district. According to Water Resources, the District Board may be looked upon as a

municipal council. Permission must be sought by landowners within the district to drain and written approval must be granted by the Board. If drainage projects are small, permission is usually granted, however, if the Board decides that the drainage project is of sufficient magnitude, it may request expertise from other provincial departments to assess the proposed project. Based on the recommendations of these authorities the Board makes its decision (Elliot 1978).

CWS has participated in planning and evaluating projects proposed by District Boards (e.g., Big Grass Marsh Flood Control Study) and significant plans have been developed to maintain migratory bird habitat. It would be worthwhile for CWS to at least maintain this degree of participation and possibly increase their participation on these committees.

10. Planning Act

The Planning Act offers Manitoba municipalities the opportunity to make cooperative long range land-use plans. Superficially, this Act appears to be a means of controlling habitat destruction of private lands. The provincial land-use policy dictates that agriculture will be given primary consideration in the development of any land-use plans. Therefore, agricultural land is developed at the expense of wildlife and migratory bird habitat. The Lieutenant Governor in Council may appoint an Interdepartmental Planning Board to develop long range provincial land-use plans and policies, coordinate such policies with government programs and ensure that district land-use plans are coordinated with provincial policies. Participation by CWS on these committees could, in some instances, prevent the destruction of migratory bird habitat.

Provincial legislation aimed at improving land managment has not been successful simply because of permissiveness. In Manitoba, the Land Rehabilitation Act (1970) and the Resource Conservation Districts Act (1976) permit municipalities to take action against farmers practising abusive land management techniques. Unfortunately, most municipalities are reluctant to take any action, primarily because municipal councillors are often neighbours and friends of these farmers. Furthermore, the councillors themselves may be guilty of the same activities (Zittlau 1979). Moreover, the legislation for improving land management is primarily punitive in that it offers no incentive for voluntary improvement of land managment practices.

Similarly, the present land tax structure under the Municipal Assessment Act offers little incentive to farmers to keep marginal land in its natural state. Although unimproved land is taxed minimally, financial constraints force farmers to cultivate marginal lands in the hope that they will realize greater net returns from cropping these lands. The emphasis on grain production in recent years has resulted in smaller percentages of untilled land on mixed farms.

Zittlau (1979) suggests that taxation policy should be modified to potect marginal lands. Specifically, he recommends that unbroken arable acreage should be taxed at the lower non-arable rate, and non-arable land should be exempt from tax. To offset the lower tax revenue of differential taxation on arable and non-arable land, arable lands would be taxed at a higher rate. Manitoba would have to increase current municipal grants to offset losses of revenues incurred to protect marginal lands. CWS could provide funds to Manitoba to supplement the municipal grants in selected areas of Manitoba.

Likewise, the Fire Prevention Act falls in the category of permissive legislation. This Act enumerates the precautions that must be taken when setting fires in rural areas and offences under the Act. Enforcement of laws rests with the municipality.

In 1976 in southwestern Manitoba, 75 percent of the uncultivated habitat, 70 percent of the farmland and 34 percent of the rights-of-way were burned. In southeastern Manitoba, six deaths were caused by burning on agricultural land (smoke severely reduced visibility which resulted in highway accidents). As a result of the deaths, the Clean Environment Commission conducted hearings into agricultural burning practices. One of the recommendations was that burning permits were required prior to conducting any burning activities.

Uncontrolled burning is simply tolerated by rural municipal councillors because they are elected from the local populace. Their viewpoints on burning develop from the community and they themselves may use it as a tool. It is therefore impossible for a rural government to administer their own laws so long as such attitudes prevail (Cowan 1977). Ducks Unlimited (Canada) (DU) launched an extensive public relations campaign in 1979 with respect to agricultural burning in southwestern Manitoba. CWS could provide support to the DU program by providing additional news releases and seminars on the effects of agricultural burning.

Elliot (1978) has comprehensively reviewed drainage laws in Manitoba and the major points are presented below. Four Manitoba statutes that relate to artificial land drainage in Manitoba are:

Water Rights Act

Water resources Administration Act

Municipal Act

Resource Conservation Districts Act (Applicable portions regarding drainage)

11. Water Rights Act

The Water Rights Act was originally designed to govern water use for irrigation purposes. However, through the amendment process, it now reflects the water law needs of the province. Consequently, the Act is full of ambiguities and inconsistencies, and requires considerable revision and clarification.

However, one provision of the Act is clear and straightforward. Landowners may drain within the boundaries of their land. Therefore, activities such as draining smaller wetlands into larger wetlands within a landowners boundaries are permitted.

CWS could request the province to revise the Water Rights Act and at least remove the provision for consolidating wetlands. The basic problem following any revisions to the Water Rights Act would be one of enforcement of the revised statutes. To make something illegal does not prevent these activities from being carried out on the face of the land. Self-policing by landowners would be totally ineffective in preventing drainage on private lands.

12. Water Resources Administration Act

The Water Resources Administration Act clearly states the Government of Manitoba, through the Water Resources Division, has the authority to construct and operate any drainage work and has the power to obtain jurisdiction over any existing channel. Also, under the

terms of this Act, the minister may delegate his power and authority to any person employed under the minister (Water Resources Division), usually a Senior Deputy Minister. Thus, the authority to authorize a provincial drainage project is an internal procedure within the Water Resources Division.

The DA, through its Technical Services Branch, administers the Farm Drainage Program which offers technical assistance to farmers where land drainage is a problem. This assistance involves the initial approval by the Agricultural Representative as well as an engineering survey and grade staking of the drainage channel route (all conducted by the Water Resources Division).

The construction of the drain, and getting the necessary permission to drain, is the farmer's responsibility. There is a minimum charge for this service -- $10/per quarter-section for the first two quarters and $15/per quarter for each additional quarter. In 1978, 80 applications for surveys were processed.

13. Municipal Act

This Act provides each municipality with jurisdiction over all non-provincial waterways within its boundaries and the power to protect these drains. In order for landowners to drain into a municipal drain, permission is sought from the municipality to cut into a municipal drainage ditch. The municipal council generally passes a resolution permitting the individual request.

The Municipal Act also provides the means whereby landowners may construct a drain across the lands of others and may obtain municipal permission and/or assistance from the municipality. Technically,

landowners wishing to drain into a provincial waterway (Water Resources drain) must obtain authorization from Water Resources. However, the Water Resources Division philosophy is that the waterway's purpose is to drain; therefore, official approval to make reasonable use of it is unnecessary.

The magnitude of these types of drainage is unknown. It would require a review of all the resolutions passed by municipal councils in southern Manitoba. Likewise, the philosophy of the Water Resources Division does not permit an evaluation of the magnitude of private land drainage.

As a result of extensive flooding in Manitoba in the spring of 1979, the DA prepared a review of agricultural drainage in southern Manitoba. The basic recommendation is that municipalities develop water management plans (E. Griffin, Manitoba Dept. Agriculture, pers. comm. 1978) with municipalities in control of developing plans. This means the construction of bigger and better drains to accommodate more agricultural drainage.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR MANITOBA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
1. Dept. of Agriculture Act	Minister of Agriculture	Permits the minister to collect and disseminate information and conduct research and enter into agreements.	N/A	N/A	$33.7 million annual budget $110 K allocated to 128 research projects in 1978.	Examine programs and investigate cooperative research and extension opportunities.
2. Agricultural Productivity Council Act	Minister of Agriculture	Agriculture Extension Centre Provide adult education opportunities through short courses on agriculture and public affairs.	Persons interested in education	Non-residential and residential short courses and facilities.	37 courses sponsored in 1977 with 3,100 persons participating in courses. Average age of attendees was 35 years.	Examine programs and investigate cooperative extension opportunities.
		Community Affairs Program Inform rural community of government program and rural changes.	N/A	Information assistance resources	279 press releases 16 new publications 343,106 publications distributed. 22 one half hour programs on CKY-TV and 7 one half hour programs for CKND-TV produced in 77-78.	
		Manitoba Beef Producers Income Assurance Program Provide stability to the beef industry. Producers have option of joining federal or provincial plan.	All beef producers	(Federal-Provincial) Establishes price support based on production costs.	$38.7 million paid in subsidies to beef producers since program initiation in 1975.	
	Minister of Agriculture	12 grassland demonstration projects throughout the province. Producers involved in management and direction.	All grassland societies	Short courses, general meetings and direct contact with producers. Dept. of Agriculture absorbs operating costs.		Provide information to producers on how to increase migratory birds on livestock operation.
		Crop Production Program Increase crop efficiency. Increase livestock output.	All farmers	Provides services such as soil testing, conduct field trials on crops, tillage methods.	$1.7 million provided in 1978 for activities.	
		Farm Diversification Program ARDA III (expired 31Dec78) To increase incomes of lower to middle income farmers by upgrading managerial skills and diversification or expansion in livestock production.	Income $4-25,000	Qualify for loans up to $10,000 from MACC.	A total of 2,628 clients accepted for program. In 1977-78 loans totalled $886,916. Grants distributed under agreement $886,916.	Ensure that Federal-Provincial agreements are not destructive to migratory bird (MB) resources.
Agricultural Productivity Council Act and Crown Land Act		Agricultural Crown Land Leasing Program Rent Crown land for crop production and livestock feed purposes.	Livestock operators	N/A	768,930 ha designated for agricultural use. Crown grazing rents were waived for third consecutive time in 1978.	Influence Crown lands as to which areas will be leased for cattle grazing. Improve portions of lease for cattle in exchange for no use area for MB.
		Lifetime Forage Lease Program	Livestock operators	Long term security of tenure of agricultural Crown land to age 65.	2,562 leases issued in 1977-78 out of 3,056 grazing leases and grazing permits on 624,217 ha.	Insure that migratory bird habitat is protected on Crown lands.
		Agricultural Crown Land Improvement Program	Crown land lessees	Land is broken and improved for tame forage production by Dept. of Agriculture.	Improvements authorized on 417 quarter-sections. A further 145 clients had development work completed on 272 quarter-sections. Total cost $542,416.	

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR MANITOBA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
		Crown Land Development	N/A	Evaluate new techniques for land development and improvement.	2 pastures, Ste. Rose and Camperville aerial sprayed to kill trees. A 4-fold increase in native hay production noted.	Determine and request that lands be set aside for migratory birds.
		Community Pasture Program (Federal-Provincial Agreement) Provide off-farm grazing. Encourage alternate uses of farmland and herd expansion.	Livestock producers	Pasture services at cost.	24 pastures 177,000 ha. Pastures carried 53,257 head of livestock in 1977 compared to rated capacity of 42,800.	Promote rest-rotation grazing.
		Manitoba Land Use Policy Agriculture given primary consideration in land-use planning. (Subject to revision)		Offers Manitoba municipalities an opportunity to make cooperative long range land-use plans.	Block Planning Com. Designate use of available Crown lands in Agro Manitoba.	Influence land-use policy by participating on BPC.
3. Agriculture Credit Corporation Act	Minister of Agriculture	Diversify and improve farming operations	All farmers	Provide loans for land improvement, land and machinery purchase.	$200 K provided for land improvement. $40 million provided in loan guarantees in 1978.	
4. Crop Insurance Act	Minister of Agriculture	All Risk Crop and Hail Insurance Provides insurance against crop loss caused by natural hazards.	Owner, tenants and landowners who qualify under regulations with regard to minimum acreage and number of crops insured.	Insurance against natural disasters for out of pocket expenses.	3.5 million acres summerfallow annually in Manitoba.	Influence policy of Insurance Board to change rate structure of preferred premium rates for summerfallow cropping. Should encourage continuous cropping.
5. Gasoline Tax Act	Minister of Finance	Gasoline Tax Act Imposes tax on purchasers and users of gasoline $0.18/gal.	Farmers and ranchers	Farmers are exempt $0.18/gal. for the operation of agricultural machinery including farm trucks.	Tax exempt subsidy provided by the province was $19.4 million. Federal subsidy was $6.9 million.	
6. Seed and Fodder Relief Act	Minister of Agriculture	Seed and fodder purchase and distribution.	Farmers and ranchers	DA pays all transportation costs of feed and seed.		
Manitoba Water Services Board Act	Minister of Agriculture	Water Services Board Program Provide pure water to communities at an affordable price and protect the the environment through proper treatment of sewage waters.	All communities above the level of incorporated village.	Community pays first 20 mills on equalized assessment annually and province pays 50% of the capital cost above that raised by a 20 mill levy. Grant to limit price of water to $3/1000 gal.	In 1978, 1,561 applicants received $289 K for purchase of on farm water and sewage systems.	Ensure that reservoir construction does not destroy migratory bird habitat. Enhance sewage lagoons by planting DNC for MU production.
7. Agricultural Societies Act	Minister of Agriculture	Promotes the improvement of agriculture by permitting formation of agricultural societies.	All agricultural societies	Capital grants and prize money to fairs and agricultural fairs.	In 1978, $180 K provided to agricultural societies, prize money $156 K, $450 K for arena maintenance.	Provide expertise and incentives to societies to conduct agriculture and wildlife programs.
8. Land Rehabilitation Act	Minister of Agriculture	Municipal regulation of land-use practices.	Municipalities	Municipalities may within the area develop systems of farm practice, tree culture, water supply, land utilization that will afford greater economic security.	Unknown. Requires review of all municipal bylaws in each municipality.	Determine which municipalities have land-use bylaws and encourage their enforcement. Develop cooperative extension programs.
9. Resource Conservation Districts Act	Minister of Agriculture	Regional regulation of land use and water management.	Conservation districts	Conservation boards may develop systems of farm practice, water and land utilization through enactment of municipal bylaws.	5 districts in Manitoba.	Determine extent of habitat loss in each conservation district. Seek participation in evaluation and design of all projects proposed by District Boards.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR MANITOBA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CVS INFLUENCE
10. Planning Act	Minister of Municipal Affairs	Provides municipalities with mechanism to make cooperative long range land-use plans.	Municipalities	Provision for inter-departmental planning board to develop and coordinate municipal and provincial policies and programs.		
Municipal Assessment Act	Minister of Municipal Affairs	Provides guidelines for the assessment and taxation of private lands.				Encourage amending the Act to protect marginal and unbroken arable lands.
Fire Prevention Act	Minister of Mines, Natural Resources and Environment	Enumerates precautions for setting fires in rural areas.			75% uncultivated habitat, 70% farm land and 34% rights-of-way burned in 1976.	Encourage enforcement of the Act.
11. Water Rights Act	Minister of Mines, Natural Resources and Environment	Provides for draining within landowner's boundaries.			Unknown	Encourage revision of the Act to remove the inconsistencies and encourage enforcement of the Act.
12. Water Resources Administration Act	Minister of Mines, Natural Resources and Environment	Farm Drainage Survey Improve the drainage of farm lands subject to flooding.	Farmers approved by agricultural representative and soil specialist	Provide drainage recommendations. Survey fee $10/ first 160 acres, $15/subsequent 160 acres.	80 farms surveyed annually.	
13. Municipal Act	Minister of Municipal Affairs	Municipal jurisdiction over non-provincial waterways.		Landowners may drain into municipal drainage ditches if approved by municipal council.		Determine extent of authorized and unauthorized drainage into municipal drainage ditches and encourage stricter control of drainage by municipality.

SASKATCHEWAN LEGISLATION AND PROGRAMS

Saskatchewan has 21.0 million ha of CLI Class 1-4 Agricultural land of which 17.4 million ha is in Classes 1-3. Total improved land accounts for 18.6 million ha with 3.0 million ha of potentially arable unimproved land. This unimproved land represents less than 14 percent of the arable land base (Shields and Nowland 1975). Most of the unimproved land is currently Crown owned and is located in the Aspen Parkland fringe.

Shields and Nowland (1975) state that under intensive crop management Saskatchewan has the potential to increase crop production by 6.5 percent on CLI Class 1-4 soils. In addition, 11.9 million ha of CLI CLass 5 and 6 lands are available for pasture development. Furthermore, 2.9 million ha of organic soils also have potential for livestock production.

In 1978, Saskatchewan's agricultural community provided 40.8 percent of the total provincial commodity production or 20.5 percent of the total gross provincial product. Saskatchewan agricultural products output has been increasing at a rate of 15-20 percent annually. (Saskatchewan's Financial and Economic Position 1979). Since agriculture ranks first in terms of commodity production, agricultural programs receive priority consideration.

Saskatchewan Department of Agriculture (DA) programs are aimed at maintaining the viability of the family farm and preserving the rural heritage. To fulfill these objectives, the policies and programs of the DA provide easy credit, numerous subsidies, abundant technical assistance, stepped-up marketing assistance, and stabilization of farm

income. All these programs indirectly affect the rate at which habitat is destroyed. Annual expenditures of the Saskatchewan Department of Agriculture for 1978 were $54.0 million.

Land and resource management in Saskatchewan is currently being evaluated. An integrated multiple-use approach is replacing the previous single purpose use approach. Saskatchewan has not as yet developed a comprehensive land-use policy. However, policy development guidelines have been identified. Some of the major policies which relate to habitat are:

(1) optimize long term production from agriculturally designated lands by preserving prime agricultural land and regulating allocation of agricultural land for other purposes,

(2) establish a system of ecological reserves, and

(3) provide financial support for preservation of valuable wildlife habitat.

Significant Acts administered by the Department of Agriculture of Saskatchewan respecting land use are:

Department of Agriculture Act

Conservation and Development Act

Irrigation Districts Act

South Saskatchewan River Irrigation Act

Agricultural Development and Adjustment Act

Provincial Lands Act

Cooperative Production Associations Act

Land Bank Act

1. Saskatchewan Department of Agriculture Act

The Saskatchewan Department of Agriculture Act provides for the administration of most agricultural programs in the province. Agricultural programs in the Northern Administration District are administered by the Department of Northern Saskatchewan.

The policies and programs of the DA are controlled by the Planning and Research Secretariat (PRS). The terms of reference of the PRS are:

(1) to identify trends and problems in the agriculture industry and propose solutions to such problems, and

(2) to assist the deputy minister in developing and evaluating policies and programs.

2. Conservation and Development Act

This Act assists in the conservation and development of the agricultural resources of Saskatchewan. Provision is made for the establishment of conservation and development areas. An elected authority is the governing body and operates under the terms of this Act. Benefited lands may be assessed to defray construction costs, operation, maintenance and administration of works.

The Conservation and Land Improvement Branch (CLIB) provides assistance to farmers for water and land development. This includes flood control drainage projects, irrigation programs and community pasture development.

Total budget for administration of these programs was $2.5 million. Each program, however, is provided with its own DA allocation.

Flood control and drainage projects are developed under authority

of the Conservation and Development Act. Landowners affected by spring flooding may organize into a Conservation and Development Area and elect an authority to carry out a project and tax the benefiting landowners to defray costs of administration and maintenance. The CLIB provides the technical and financial assistance for the planning, construction, maintenance and administration of works. The total budget for flood control and drainage in 1978 was $1.6 million.

Financial assistance includes:

(a) two-thirds of the cost of construction, and

(b) two-thirds of the cost of maintenance.

Provincial share of construction costs in 1978	$436,605.30
Provincial share of maintenance costs in 1978	$151,891.00

The current level of interest in drainage projects is indicated by the following:

(1) 190 projects under investigation,

(2) 60 projects on which design proposals are completed and awaiting local approval,

(3) 67 projects under construction, and

(4) 143 projects under maintenance services.

There are 105 conservation and development and 5 watershed associations organized in Saskatchewan. Since these organizations represent private landowners, they could well serve as a contact for CWS habitat programs. These organizations are responsible for the maintenance of approximately 1,500 miles (2,400 kilometres) of ditches. Some of the maintenance costs include grassing ditches as well as mowing ditches. It would be worthwhile for CWS to consider providing dense nesting cover (DNC) for regrassing and requesting that

mowing be kept to a minimum. As well, an evaluation of the ditches could be done to determine which areas could be potentially developed to enhance migratory bird production. Apparently 13 projects have been constructed by the CLIB to accommodate backflood irrigation. Some of these areas could be enhanced for migratory birds.

Apparently the Saskatchewan Wetlands Committee (SWC) reviews all projects qualifying for construction assistance. These must be reviewed and cleared by the committee before CLIB assistance is provided. To date, the committee has reviewed 346 projects of which 243 projects have been authorized for construction. The SWC was established in 1971 because there was a concern over the loss of waterfowl habitat through government subsidized drainage and flood control programs.

The committee is composed of deputy ministers from the Departments of Tourism and Renewable Resources, Agriculture and Environment (Sask.). The committee's primary function is to review development proposals related to wetlands and to resolve conflicting uses of wetlands. A Technical Advisory Committee (TAC), composed of representatives from the same departments, investigates and reports on drainage and flood control projects proposed by the DA as well as proposals put forth by Ducks Unlimited (Canada). The TAC recommendations are usually ratified by the SWC. However, if the SWC renders a decision unacceptable to the project proponent, the proponent can petition the ministers of the departments having membership on the SWC for a reversal in the decision. Since the SWC is subject to political pressure, it cannot be totally effective in maintaining wetland habitat. This committee at least acts as a

watchdog agency over the development of large drainage projects.

If CWS were a member of the SWC and provided financial incentives for the preservation and enhancement of waterfowl habitat in conservation and development areas, the committee might be more effective. Incentives would be required in this instance because landowners are assessed taxes on lands that benefit from project works. Money collected from these tax levies pay for a portion of maintenance and administration within the conservation and development district.

3. Irrigation Districts Act

This Act provides for the organization powers and operating procedures of irrigation districts. The DA provides engineering, technical and financial assistance in the form of grants. A total of $423,000 has been paid in grants to develop approximately 18,350 acres (7,426 ha) of irrigated land.

4. South Saskatchewan River Irrigation Act

The Act establishes the South Saskatchewan River Irrigation Project (SSRIP) and provides for grants up to $50,000 per farmer. Under the South Saskatchewan River Irrigation Act, lands designated for irrigation projects may be developed in one or two ways:

(1) Farmers not wishing to participate in the project may sell land to the DA. Approximately $2.6 million has been spent on this type of land acquisition. The DA then develops the land.

(2) Farmers within the project may receive development grants and loans from the DA.

Farmers in the SSRIP may lease developed lands for a period of up to 10 years. These lands usually have an option to purchase. Leases designated for irrigation but currently undeveloped are set for a 5-year term without a purchase option.

Approximately $20.1 million was spent on the construction of Gardiner Dam (Diefenbaker Lake) on the basis of 500,000 potentially irrigable acres (202,350 ha). This was revised downward to 200,000 acres and it now appears there are only 39,607 acres (16,029 ha) of potentially irrigable land in the SSRIP of which 28,185 acres (11,406 ha) have been developed. To date, $842,000 in interest grants have been provided to farmers to develop these lands. In 1977-78, landowners in the SSRIP paid 80 percent of the costs (approximately $1.4 million) by way of grants.

The CLIB also provides engineering and technical services to private individuals wishing to develop gravity and sprinkler irrigation systems. Grants are provided for up to one-third the development costs (maximum $35 per acre or $88 per ha) of irrigation systems. Funds are also available through FarmStart if applicants meet personal financial criteria to qualify for loans, for land levelling, specialized irrigation equipment and buildings. Approximately 10,000 acres (4,040 ha) have been developed under this program.

The growth of the beef livestock industry from 950,000 head of cattle in the 1950s to over 3.0 million head has provided the impetus to promote irrigation development, particularly in southwestern Saskatchewan to alleviate chronic fodder shortages.

It is presently unknown what proportion of the developed irrigated lands required levelling for irrigation purposes. However, land

levelling eliminates class 1 and 2 wetlands, and further erodes the habitat base for migratory birds.

5. Agricultural Development and Adjustment Act

This Act permits the Department of Agriculture to construct projects to improve the utilization of the agricultural resources of the province. The Community Pasture Regulations made under the Act allow the Minister of Agriculture to establish and operate community pastures on provincial lands controlled by the DA.

6. Provincial Lands Act

This Act provides that provincial lands lying outside provincial forests, parks, and protected areas are to be administered by the DA. The Act describes the method whereby these lands may be sold or leased and the reservations to the Crown.

The control of provincial Crown lands, 7.2 million acres (2.9 million hectares), is administered by the Lands Branch (LB) under authority of this Act and the Agricultural Development and Adjustment Act. The terms of reference of the Lands Branch are to administer the Acts in such a manner as to support the DA objectives of developing a sound agricultural industry and a stable rural community. Land acquisition conducted by the LB is generally for a specific reason, such as irrigation projects and expansion of grazing association pastures. Recently, however, lands that may be affected, or have been affected, by flooding may be purchased by the LB. These lands are then leased back to farmers and land use is restricted to purposes consistent with periodic flooding.

These flood prone areas could be evaluated as to their potential for development or enhancement for migratory birds.

The Lands Branch leases Crown land to farmers and ranchers who require additional land to maintain a viable operation. Land is generally allocated on the basis of need for a period of 10 years. Approximately 393,396 acres (159,207 ha) are under lease. Leaseholders may apply to purchase land under a cultivation lease, providing that the lease has been held for a minimum of 5 years and 50 percent of the land has been improved.

Financial assistance under the Cultivation Lease Improvement Program is provided. A total of $410,000 was invested in 1977 for lease improvement. Assistance is $60/ac ($150/ha) for breaking where clearing is not required, and an additional $7/ac ($18/ha) is provided to the lessee for working down to cultivation depth. Lessees may purchase improved leases and earn a credit of 60 percent of the clearing and breaking costs to a maximum of $21/ac ($53/ha) on each acre improved by the purchaser. To date, 1.2 million acres (.48 million ha) have been improved. In 1977-78, 1,125 parcels totalling 284,551 acres (115,150 ha) were sold to lessees.

The rate of Crown land disposition in Saskatchewan is alarming. The LB provides the necessary incentives to clear and break land. The Farm Credit Corporation provides whatever funds are required to purchase the land after it is improved. It appears, superficially at least, that very little consideration is given to wildlife or migratory birds under the terms of the Cultivation Lease Improvement Program. CWS should strive to influence the DA to reduce the scope and rate of Crown land development and disposition and to consider the future

implications to wildlife and migratory birds. Similarly, the Grazing Lease Improvement Program initiated in 1973 was designed to develop suitable land for perennial forage crops. The standard grazing leases specify that a reasonable portion of any tree growth on leased land must be reserved by the lessee and that the lessee provide "reasonable" care for such growth. CWS should request that the DA consider inserting a similar clause regarding wetlands.

The Lands Branch authorizes land improvement work. Payments of $55/ac ($138/ha) for clearing and breaking and $15/ac ($38/ha) for breaking where clearing is not required are provided. An additional $7/ac ($18/ha) is provided for working down to cultivation depth. Payments for seed and herbicide provided are $13/ac ($33/ha). Lands designated for grazing are leased for 21 years, and are not generally sold. The Grazing Lease Improvement Program has to date provided additional grazing for 75,000 beef cows and an approximate gross income increase of $13 million annually to Saskatchewan. In 1978, land improvement programs cost the DA $1.7 million. The LB also administers an annual hay cutting program on provincial Crown land. It is the applicant's responsibility to identify the location and estimate the tonnage of hay to be cut. Payment is made to the DA based on rates determined by the DA. In 1978, there were 1,123 hay leases covering 165,737 acres (67,074 ha).

7. Cooperative Production Associations Act

The Act provides for the incorporating of the following cooperative associations: farm associations, livestock associations, grazing and fodder associations and land improvement associations. It

outlines the powers of an association and deals with bylaws, membership, directors and officers, meetings, management and administration.

There are four types of community pastures operated in Saskatchewan -- grazing associations, provincial community pastures, PFRA pastures and municipal pastures.

(1) **Grazing Associations** were established under the Cooperative Production Association Act and administered by the Department of Cooperation and Cooperative Development. Crown lands and privately owned lands acquired by the LB are leased to these associations to meet grazing requirements. There are 134 association pastures with a total area of 646,350 acres (261,578 ha).

(2) **Provincial Community Pastures** are established under the Agricultural Development and Adjustment Act and the Provincial Community Pasture Regulations. These pastures are administered by the LB. The costs of land acquisition, capital development and construction are shared with the Government of Canada under a cost-sharing agreement on all pasture projects. There are 59 provincial community pastures totalling 782,792 acres (316,796 ha).

The Province of Saskatchewan is proposing to expand provincial pastures by adding 90,000 acres (36,423 ha). One million dollars was provided by the DA for community pasture development in 1978 plus $404 million for the operation and land acquisition for community pastures. It is unknown how much the Government of Canada contributed for these activities. Grants in lieu of taxes are paid by the DA to municipalities having land in provincial and municipal pastures.

(3) **PFRA Pastures**, 70 in total, occupy an area of 1,811,324

acres (733,043 ha). Of this, 478,057 acres (193,470 ha) have been leased by the Province of Saskatchewan to the federal government. At least 300,000 acres (121,410 ha) of PFRA pastures have been broken and seeded to tame forage.

(4) **Municipal Pastures**, 17 in total, cover 29,542 acres (11,956 ha).

Thus, a total of 3,270,000 acres (1,323,369 ha) are utilized for cattle grazing in Saskatchewan and there are plans for pasture expansion. The DOE (Saskatchewan), under guidelines issued to determine if projects require an environmental impact assessment (EIA), states that expansion of community and municipal pastures of 1,280 acres (518 ha) by breaking or clearing may require an EIA. CWS could volunteer inputs into this process to reduce habitat losses to migratory birds. This activity could be followed up, where possible, by fencing potholes and upland habitat to ameliorate the impact of pasture improvement for cattle. CWS should also strive for the implementation of rest rotation grazing systems on pastures administered by the Saskatchewan DA. In addition, discussions with the DA should emphasize the need for adherence to A.U.M.'s assigned to pastures since they are currently permanently overgrazed (P. Taylor, CWS pers. comm. 1979).

8. Land Bank Act

The Act passed in 1972 provides for the establishment of the Saskatchewan Land Bank Commission. This legislation provides the opportunity to Saskatchewan residents to establish and maintain family farms by increasing the opportunities of Saskatchewan farmers to

acquire and dispose of their farms at fair market value.

The stated objectives of the Land Bank Commission (LBC) are:

(1) to provide continuous sales opportunity to people who own farmland in Saskatchewan,

(2) to enable individuals with the desire and practical ability to begin farming, independent of substantial family assistance,

(3) to facilitate the establishment of viable farming units,

(4) to encourage perpetuation of viable units through transfer of possession to direct descendants,

(5) to develop a system of allocating land based on fair and unbiased selection between applicants, and

(6) to provide financial and farm managment counselling services.

To date, the Land Bank Commission has acquired 924,712 acres (374,231 ha) having a net value of $80.5 million. As some Crown cultivation leases expire in the Lands Branch, they are transferred to the Land Bank for alienation to private land. If the lessee accepts the Land Bank Commission asking price, the lease is transferred to private ownership. In 1978, 8,123 acres (3,287 ha) were sold to 31 lessees.

Funds provided by the Minister of Agriculture for the operation of the Land Bank Commission totalled $38.0 million in 1978. A $104 million grant was provided in 1978 by the DA to cover administrative costs of the Land Bank Commission.

Saskatchewan financial assistance is provided to farmers under the following Acts:

Agricultural Incentives Act

Saskatchewan Crop Insurance Act

Agricultural Development and Adjustment Act

Family Farm Improvement Act

Farm Cost Reduction Act

Studies conducted by the Saskatchewan DA indicated that large farms (two sections or more) expanded quickly and were generally more diversified. Large farms generally had the greatest potential for next generation operators. Since small farms were the least diversified, programs were instituted to lease land and facilitate borrowing money to expand, intensify production on existing lands and diversify small farm operations.

9. Agricultural Incentives Act

The Agricultural Incentives Act created the FarmStart program to provide financial assistance to encourage and promote the development and expansion of agriculture in Saskatchewan. The objectives of the FarmStart program are:

(1) to make credit available to farmers and potential farmers who require capital to develop viable farm units,

(2) to diversify Saskatchewan agriculture by providing incentive grants to farmers, and

(3) to assist in conversion from dryland farming to irrigation in the South Saskatchewan River Irrigation Project by provision of technical and financial assistance.

Individuals can borrow up to $90,000 providing assets do not exceed $180,000. Security is provided by assets purchased with money from FarmStart. Repayment is over 15 years with interest rates based on the cost of borrowing money by the province. Funds obtained can be used to purchase breeding stock, improve livestock facilities and

improve grazing lands. Loans are not made for land acquisition.

Grants are available under FarmStart to develop economic farm units whos net worth is less than $36,000. A maximum of $8,000 can be provided. Grants are prorated on a scale of $500 for each $1000 net worth under $36,000. Terms of the grant require that recipients expand livestock production by $4 for every $1 received. Total loans receivable in 1978 were $100 million.

FarmStart administers three livestock assistance programs:

(1) Livestock Loan Guarantee Act Program (LLGAP)

The LLGAP is a subsidy program available to all livestock producers. Bank interest charges over 7 percent are paid by the Provincial Government directly to borrowers for the first three years of the loan. Since the beginning of the program, $1.2 million has been paid out in interest subsidies to farmers. Although this program was officially terminated in 1974, subsidies were still paid in 1978.

(2) FarmStart Guaranteed Livestock Loans Program (FGLLP)

Assistance is provided to farmers who do not qualify under the regular FarmStart program. Loans are arranged for a 7-year term with no specific eligibility criteria. Loans are guaranteed by the province to cover 80 percent of the loss of any loan. There are no subsidies under this program. During fiscal year ending March 1978, $1,512,492 was outstanding in guarantees under this program.

(3) Beef Industry Assistance Program (BIAP)

Under this program, farmers are eligible to receive cash advances

(interest free loans) of $75 per cow or 80 percent of the breeding cow herd to a maximum of $6000. In addition, farmers could qualify for grants of $50 per head on 70 percent of their eligible cow herd. To be eligible for a grant, the producer's 1975 taxable income could not exceed $8000 and the amount of the grant was limited by the amount the taxable income was less than $8000. In all, $49.7 million has been provided in loans and $30.8 million in grants.

In Saskatchewan, beef farmers with less than 50 cows had an average net income of $2035, but when an investment labour and management return were included in the calculations, substantial losses were incurred. On beef farms with 100 cows or more, sufficient income was generated to pay a full investment return, but only a $2000 labour management return (Farm Business Review 1977). Consequently, just about every beef producer was eligible for a grant in 1976. Farmers are insulated from direct economic effects which should govern the rate of expansion of farming operations. Since expansion usually equals habitat loss, it is small wonder that habitat loss is increasing.

10. Saskatchewan Crop Insurance Act

This Act creates the Saskatchewan Crop Insurance Board and gives it the power to insure insurable persons under every plan prescribed by the Board. The objectives of the Corporation are:

(1) to provide comprehensive all-risk crop insurance to indemnify farmers for production cost,

(2) to provide insurance against uncontrollable natural disasters, and

(3) to provide additional protection against hail loss.

Comprehensive all-risk crop insurance indemnifies farmers to the point of cost of production. Each insured farm operator is guaranteed a specified number of bushels of a specified grade for each insured crop. If production falls below the insurance coverage in bushels, the farmer is paid the difference. This, therefore, has a stabilizing effect on farm income.

This program is jointly financed with the federal government. The federal government provides 50 percent of the premium costs while the province provides the total administrative costs.

Aside from the above coverage, optional insurance is available for unseeded summerfallow acreage. This offers protection to farmers who cannot seed because of excessive spring moisture. As well, the premium rate structure strongly favours farmers who utilize summerfallow. In certain areas of Saskatchewan, preferred rates are provided to farmers who seed on previously summerfallowed acreages. In 1978, twelve million acres were insured by 39,000 farmers. The federal government's 50 percent share was $24.4 million.

Because of increasing soil salinity problems associated with the practice of summerfallowing, CWS should request that the Government of Canada reduce contributions to insurance programs and promote continuous cropping or conversion of land to perennial forage. Preferred insurance rates for summerfallow grown crops indicate that land is currently being artificially managed to produce cereal grains.

11. Agricultural Development and Adjustment Act

This Act provides assistance to projects for the purpose of

improving the utilization of agricultural resources for the purpose of providing income and training opportunities.

Under the terms of the Act, provision is made for the establishment of rural development areas. Low income farmers may apply for loans to increase their income through land improvement, acquisition of livestock, erection or improvement of buildings, purchase of machinery and equipment but not land acquisition. The total amount a farmer could borrow is $8,000 in any two-year period and the total of all outstanding loans to him may not exceed $20,000. Farmers between the age of 21 and 60 years realizing less than $15,000 from the sale of agricultural land may apply for educational assistance.

12. Family Farm Improvement Act

Provisions of the Act create the Family Farm Improvement Branch (FFIB) of the Department of Agriculture for the purpose of improving the rural economy and living standards. Provisions in the Act advance the rural economy by providing technical and construction assistance, installation services, and financial assistance for the improvement and modernization of farmsteads and rural buildings. Five thousand dollars is available to each Agricultural Extension Region to identify needs and plan agricultural improvement projects and programs. The total budget of the FFIB is approximately $3 million annually.

The FFIB offers assistance to develop adequate water supplies and install water and sewage systems for individual farms and small urban communities. Since 1960, over $5.7 million has been paid in the form of grants to develop sewage and water facilities. CWS could cooperate

with the FFIB and request that uplands adjacent to sewage lagoons be planted to dense nesting cover.

13. Farm Cost Reduction Act

The Farm Cost Reduction Act provides payments to farmers who use petroleum products for their farming operations. Prior to 1979, grants could not exceed $100 or $.04/gal. of petroleum products whichever was less. Saskatchewan is following in the footsteps of Manitoba and Alberta by providing a total road-tax rebate on all fuel used for agricultural production purposes. An estimated $16 million will be provided to farmers in fiscal year 1979-80 (Budget speech, W. Smishek 1979). The average minimum value of this indirect subsidy is $210 per Saskatchewan farm.

Three other programs were announced by the Minister of Finance in March 1979 to provide indirect assistance to farmers:

(1) Elimination of succession duties and gift taxes to ensure that farming operations can be continued by the farmer's children.

(2) A rebate program to farmers on income tax on capital gains that arise as a result of sale of farms.

(3) Three million dollars provided to set up the Saskatchewan Agricultural Research Fund. Research will be conducted to improve the productivity of Saskatchewan agriculture.

Other Acts affecting the retention of migratory bird habitat on private lands are:

Water Rights Act

Drainage Act

Private Ditches Act

Soil Drifting Control Act

14. Water Rights Act

The Water Rights Act empowers the Minister of Agriculture to manage and administer water rights through the Saskatchewan Water Commission. The ownership and right to use surface waters and ground water is vested in the Crown unless authorized by the Act. Riparian rights are guaranteed under the Act. The Act also describes methods of receiving permission to construct dams for domestic, irrigation and other purposes.

15. Drainage Act

The Act provides for the organization and financing of drainage districts. Before a district can be organized, the resident owners of two-thirds of the land area to be drained must sign a petition and submit it to the Minister of Agriculture. Before, during or after completion of construction of drainage works, the Minister may order the issue of debentures for the estimated or actual cost of the work. The Minister of Finance purchases the debentures under authority of the Saskatchewan Loans Act.

Drainage is well organized in Saskatchewan under the guise of Drainage Districts, Conservation Districts and Watershed Associations. The farmers of Saskatchewan have a history of being united to achieve their goals. Four million acres (1.6 million ha) of private land are controlled by these drainage associations. CWS can rest assured that these associations will increase in number with a concomitant loss in

migratory bird habitat. CWS can only influence these activities indirectly through participation on committees to assess the extent to which these drainage activities will affect migratory bird habitat, and can try to ameliorate the impact of these activities on private land.

16. Private Ditches Act

This Act concerns the construction and maintenance of small ditches by the owners of lands to be benefited. The Act concerns the construction of ditches in municipalities where the cost of one ditch does not exceed $5000. It outlines the allocation of costs and procedures to be followed when an owner constructs a ditch which must pass through property owned by other persons.

This Act facilitates the drainage of private lands. It appears that some drainage is controlled at the municipal level. The extent to which the Act is utilized to facilitate drainage is unknown and should be further investigated.

17. Soil Drifting Control Act

The Soil Drifting Control Act empowers the municipality to regulate and control tillage practices. The municipality may upon receipt of a petition signed by forty resident ratepayers request that the council pass a bylaw for the regulation and control of tillage practices. The bylaw may contain provisions requiring the adoption of certain soil conservation practices such as strip farming, growing cover crops and prohibiting the burning of stubble. The bylaw is not effective until approved by the Minister of Agriculture. Since it is

the responsibility of affected landowners to initiate action, it is doubtful that this has ever happened. Even if a bylaw exists, it is unlikely that it is enforced, because councillors and reeves are reluctant to take action against neighbours. Consequently, poor land management practices are continued. CWS could provide information on poor land management practices which have a detrimental effect on crop production and migratory birds, encourage the enforcement of existing bylaws and develop cooperative programs.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES

RELATING TO AGRICULTURE FOR SASKATCHEWAN

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
1. Department of Agriculture Act	Minister of Agriculture	Maintain the viability of the family farm through numerous programs.		Subsidies, grants, tax incentives, extension, research.	Annual budget $54 million	Examine programs and investigate cooperative research and extension opportunities.
2. Conservation and Development Act	Minister of Agriculture	Water Control Projects Alleviate flooding and drainage problems associated with agriculture and advance soil and water information.	Farmers organized in Conservation and Development areas watersheds, and municipalities.	Engineering and technical services are available free of charge for investigation survey and design and construction of water control projects. For organized groups costs of construction are shared up to 2/3 province and 1/3 private.	Flood control projects in 77-78 total construction cost $579,000 maintenance of existing projects $227,836. Total acres taxed 4,333,800.	Encourage use of wetlands as flood storage areas, provide technical expertise in designing water projects to enhance MB. Seek membership on Saskatchewan Wetlands Comm. and Technical Advisory Committee. Investigate possibility of improving habitat in Conservation Districts.
3. Irrigation Districts Act	Minister of Agriculture	Technical and Financial Irrigation Assistance	Farmers in designated Irrigation districts.		$423 k paid in grants to develop 18,350 acres.	Examine programs and determine impact on migratory bird habitat.
4. South Saskatchewan River Irrigation Act	Minister of Agriculture	Assistance Policy for Irrigation Development Assist farmers who control land suited to irrigation and can procure an adequate water supply to develop irrigation primarily for fodder production or sprinkler crops.	Farmers controlling land suited to irrigation and can procure an adequate water supply.	Grants of 1/3 eligible costs to a maximum of $34/ac and technical assistance are available for land levelling or springler irrigation development in SSRIP. Loans up to $50,000 per farmer available at 6% to cover remaining costs.	28,185 acreas developed to date of a potential 39,618 acres. $899,000 in grants + 80% of operation and maintenance costs paid by DA.	Discourage fodder production because of heavy mortality to waterfowl associated with harvesting. Discourage land levelling.
5. Agricultural Development and Adjustment Act (also see #7)	Minister of Agriculture	Community Pastures Provide equitable allocation of available grazing privileges in provincial community pastures.	Livestock producer obtaining at least 50% of his income from farming operations.	Grazing, breeding and some veterinary services. $1 million provided by DA for pasture, development and $40.4 million for operation and land acquisition for community pastures.	PFRA 1,811,324 acres Provincial pastures 782,792 acres 300,000 acres of PFRA pastures have been broken and seeded to tame forage.	Encourage proper management of pastures to prevent overgrazing and encourage use of rest rotation grazing system. Examine programs and determine extent of habitat loss. Develop a mutually acceptable habitat improvement program for PFRA and provincial community pastures.
6. Provincial Lands Act	Minister of Agriculture	Cultivation Leases Assist farmers who have cultivation leases from department to clear and break arable land. Improve income position of small family farm by increasing cultivated land in the family unit.	Farmers with cultivation leases with Dept. of Agriculture	Full cost of clearing, breaking, root picking, up to $60/ac may be paid on approved applications.	To March 31, 1978 713,463 acres broken and 546,555 cleared. $410,000 invested in 1977-78.	Encourage land-use evaluations prior to approving applications. Encourage multiple land-use practices.
		Grazing Leases Encourage farmers and ranchers to develop land suitable for improvement.		Cost of improvement will be paid by the department including clearing, breaking, root picking, seeding and spraying up to a set maximum/ac.	To March 31, 1978, 74,233 acres cleared, 75,016 acres broken.	Encourage land-use evaluations prior to approving applications. Encourage multiple land-use practices.
		Hay Cutting on Provincial Land Provide for harvesting of hay from vacant provincial land.	Applications received prior to April 30 have equal rights. After April 30, first come first served.	Applicants must identify location of hay be legal description and estimate tonnage. Rates determined by Dept. of Agriculture.	1,123 leases in effect with a total of 165,737 acres.	Examine haycutting permits and request that on certain areas restrictions be placed to leave residual cover for nesting MB.
		Sale of Cultivated Provincial Lands Provide for sale to lessesholders quarter sections with a minimum of 80 acres or parcels with a minimum of 50% of the acreage under cultivation.	Bonafide farmer 5-years' satisfactory tenure. No person other than lessee may purchase land held under lease. No debt against leased land.	Crown land which has at least 50% of its acreage under cultivation may be considered for sale to lessees after 5 yrs satisfactory tenure.	Total sales to March 31, 1978 3,488 parcels (748,354 acres) since program initiated in 1961.	Discourage sale of provincial Crown land.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR SASKATCHEWAN

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
7. Co-op Production Associations Act (also see #5)	Minister of Cooperation & Cooperative Development	Co-op Grazing Associations (Federal-Provincial)	Co-op grazing associations using Crown land.	Associations using Crown land and having at least 6 members may receive financial assistance up to $800/member for fence and corral construction.	646,350 acres 1,468 members 134 associations 44,090 cattle grazed in 1978.	Encourage rest rotation grazing systems. Determine extent of habitat loss. Develop mutually acceptable habitat improvement projects.
8. Land Bank Act 1972	Minister of Agriculture	Saskatchewan Land Bank Commission Land Bank Commission to administer Land Bank Program.	To qualify for a lease: a) farming is principal operation b) net worth not exceed $60,000 c) 3 year av net income not exceed $10,000 d) Saskatchewan resident.	Land bank will buy land from farmers at competitive prices determined by experienced appraisers and will lease land to successful applicants on a cash rental basis giving them opportunity to purchase after 5 years.	Purchased to date 924,712 ac for value of $80.5 million.	
9. Agricultural Incentives Act	Minister of Agriculture	FarmStart Assist farmers and potential farmers who face difficulties in developing economic farm units. Assist in diversifying Saskatchewan agriculture to stimulate an increase in income and employment by additional livestock production.	Farmers and potential farmers.	Loans up to $90,000 at 6% with a maximum repayment period of 15 years and grants up to $8,000 are available to farmers with limited total productive assets, a low net worth and low net income to assist in development of economic farm unit through establishment or expansion of livestock production. Similar guarantee to potential farmers.		
		1) Livestock Loan Guarantee Act Program: Province pays all interest charges over 7% on livestock purchase loans.	All livestock producers	1.2 million paid in grants since 1974.		
		2) FarmStart Guaranteed Loans Program: Loans are made by lending institutions and are guaranteed to cover loss to 80% of value.	Farmers who do not qualify for FarmStart loans.	1.5 million in outstanding loan guarantees in 1978.		
		3) Beef Industry Assistance Program: Cash advances and/or grants.	All beef producers.	$30.8 million in grants and $49.7 million in loans under BIAP.		
10. Saskatchewan Crop Insurance Act	Minister of Agriculture	Crop Insurance Provide for greater stability in returns to Saskatchewan farmers.	Saskatchewan farmer	An all-risk crop insurance plan is available to farm operators to cover losses on wheat, oats, barley, flax, mustard, rapeseed, sunflower, fall rye and unseeded summerfallow.	6,000,000 acres are annually summerfallowed. 12 million acres insured, federal government share $24.4 million in 1978.	Change premium rates to favour continuous cropping practices. Present premium rate structure encourages summerfallowing.
11. Agricultural Development and Adjustment Act	Minister of Agriculture	Financial and educational assistance for improving utilization of agricultural resources.	Low income farmers	Loans for land improvement, livestock acquisition, machinery. Max.$8,000 in any 2-year period. Total outstanding loan not to exceed $20,000.		
12. Family Farm Improvement Act	Minister of Environment	Assistance for Regional Program Development Provide assistance to organized groups in identifying needs and planning agricultural improvement projects and programs.	Organizations and individuals recommended by agricultural representatives and approved by regional coordinator or director of branch.	Up to $5000 available for each Agricultural Extension Region for allocation to rural municipalities, LGDs, Indian bands or other organized groups to conduct approved resource use surveys and meetings to plan and carry out specific projects.		

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR SASKATCHEWAN

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
12. Family Farm Improvement Act (Cont'd)		Small Community Water and Sewage Help local governments install community water and sewage lagoons in communities with less than 250 people.	Hamlets, settlements and small villages with population up to 250 people.	Technical assistance, cost estimates, ordering service and grants from the Municipal Water Assistance Board are available to communities with populations up to 250 people for installing sewer and water services.	$5.7 million paid in grants since 1960.	Could provide technical expertise for planting DNC on sewage lagoons.
13. Farm Cost Reduction Act	Minister of Finance	Farm Cost Reduction Help farmers keep their costs down in a period of inflation.	Bonafide farmers	Rebate of four cents a gallon on purple gas, diesel fuel and propane fuel for farm purposes is available. Maximum rebate $100.	$16.0 million in rebates to farmers in 1979-80.	
14. Water Rights Act	Minister of Environment	Water Rights Act Water Resources Commission manages and administers water rights in the province.	Ownership and right to use surface and ground water is vested in the Crown.	Nothing in the Act restricts the right of a person owning or occupying land that adjoins a body of surface water to use such quantity of its water as he may require for domestic purposes. Describes methods of securing permission to construct dams and other works for domestic and irrigation purposes.		
15. Drainage Act	Minister of Agriculture	Drainage Act Deals with the organization and financing of drainage districts.	2/3 of resident owners of land to be drained must sign petition.	Upon organization of drainage districts the minister may negotiate and issue debentures for the estimated or actual cost of work.	1.6 million ha controlled by drainage associations.	Determine extent of habitat loss in Drainage Districts. Seek membership on key committees to assess impact of proposed drainage on habitat. Develop public relations campaign to protect wetlands.
16. Private Ditches Act	Minister of Agriculture	Private Ditches Act Concerns the construction and maintenance of small ditches by owners of land to be benefited.	Any landowner	Outlines the allocation of costs and procedures to be followed when an owner constructs a ditch which must pass through property owned by other persons.		Investigate the extent to which the Act facilitates drainage.
17. Soil Drifting Control Act	Minister of Agriculture	Soil Drifting Control Act Empowers the council of municipality to regulate and control tillage practices.	Municipality shall upon receipt of petition signed by 40 resident ratepayers pass a bylaw providing for the regulation and control of tillage practices which, in the opinion of the council, are liable to cause rapid soil deterioration by wind erosion. The bylaw is not effective until approved by Minister of Agriculture and submitted to a vote of electors 3/5 of when must approve.	Bylaw may contain provisions for strip farming, the growing of cover crops, the providing of trash cover or other refuse on cultivated land; prohibit the burning of stubble, prohibit the cutting or require the planting of trees; require, prohibit or govern the use of specified kinds of machinery, govern tillage operations, regulate or prohibit the growing of crops in specified areas.		Provide information on poor land management practices which have a detrimental effect on crop production and migratory birds. Determine existing bylaws and encourage enforcement of them. Develop cooperative programs.

ALBERTA LEGISLATION AND PROGRAMS

In Alberta, there are 11.2 million ha of arable land in CLI Agriculture Capability Classes 1,2 and 3. Improved land in CLI Classes 1-4 totals 11.4 million ha. Potentially arable unimproved land is estimated at 24.4 million acres (9.76 million ha), most of which is Crown land. Over half of this land is in the Peace River District. This unfarmed land, presently largely covered by forest, has the potential of increasing present field crop production by 47 percent (Shields and Nowland 1975). An additional 22.9 million acres (9.16 million ha) of CLI Class 5 and 6 lands has improved and unimproved pasture potential. Also, 11.93 million acres (4.77 million ha) of organic soils may have potential for livestock production.

Since the late 1940s, Alberta's economy has shifted away from agriculture and towards non-agricultural resources, particularly oil and gas. However, because of the national and international emphasis on food production (Western Producer 1979), agriculture is again receiving more attention and is expected to play an increasingly important role. Before 1972, annual expenditures approached $100 million. In 1977-78, with only 8 percent of Canada's population, Alberta produced 20 percent of the nation's food.

Land and resource management in Alberta is presently based on a philosophy of best use through integrated resource management (Ward 1975). Although four provincial departments (Agriculture; Recreation, Parks and Wildlife; Environment; and Municipal Affairs) have jurisdiction over agricultural lands in Alberta, other departments provide representation on several land-use committees outlined below:

1) **Natural Resources Coordinating Council** (NRCC) - policy advisory body, deals with land use management.

2) **Conservation and Utilization Committee** (CUC) - reviews and coordinates land use planning and management.

3) **Land Use Assignment Committee** (LUAC) - makes land allocation recommendations for Crown lands.

4) **Land Conservation and Reclamation Council** (LCRC) - works with landowners, local authorities and the mineral development industry.

5) **Provincial Planning Board** (PPB) - an advisory body to the Lieutenant Governor in Council, assists regional planning commissions in the coordination of their activities.

Public input concerning land use is provided through the Environment Conservation Authority (ECA) and the Alberta Land Use Forum (ALUF). Three land-oriented issues identified by the ALUF have influenced provincial as well as federal economic support of Agriculture - the increasing concentration of population growth in urban centres, the declining population in rural areas and variations in regional growth and prosperity (Ward 1975).

Government programs aimed at helping the farmer and preserving the family farm are increasing. Between 1960 and 1971, credit availability from provincial and federal sources increased by 13 percent. From 1971 to 1975, it doubled. Alberta legislation relating to land use and financial assistance includes the Acts below. Each is discussed individually. Possibilities for CWS influence are indicated where feasible.

Planning Act
Department of Agriculture Act
Drainage Districts Act
Irrigation Act
Water Resources Act
Soil Conservation Act
Public Lands Act
Crown Cultivation Leases Act
Special Areas Act
Agricultural Development Act
Federal-Provincial Farm Assistance Act
Hail and Crop Insurance Act
Feeder Associations Guarantee Act
Agricultural Research Trust Act
Agricultural Relief Advances Act
Marketing of Agricultural Products Act
Wheat Board Money Trust Act
Agricultural Societies Act
Agricultural Service Board Act
Weed Control Act
Livestock Diseases Act
Municipal Taxation Act
Municipal Government Act

1. Planning Act

The Planning Act, as of 1975, emphasizes development through the coordination of land uses, and controls land-use planning through powers granted to the seven regional planning commissions. These regional planning commissions are responsible for:

(a) formulation of regional planning policies,

(b) implementation of a regional plan,

(c) planning assistance to municipalities, and

(d) promotion of public interest in planning.

Their jurisdiction embraces over one-half of Alberta's area and over four-fifths of the population. The provincial planning branch is responsible for planning in areas outside the regional planning commission boundaries. Municipal planning commissions work in

accordance with development control and zoning bylaws on behalf of municipal councils. Unfortunately, provincial agency decisions can be made without input from the commissions and only preliminary, but not official, regional plans exist. Therefore, a single-purpose agency concerned with a particular matter such as intermunicipal water supply supersedes the commission's authority. It is not known if the new Planning Act, developed in 1976-76, has removed these discrepancies. The 1974 draft of the new Planning Act emphasized land-use planning before the fact, rather than have land-use decisions on an ad hoc basis. The draft Act also stresses increased land-use planning and regulation at the provincial level (Ward 1975).

2. Department of Agriculture Act

This Act creates the Department of Agriculture (DA) and describes the Minister's powers, functions and duties and the powers of the Lieutenant Governor in Council. The Minister's activities include making grants and regulations relating thereto and acquiring property:

(a) for withdrawing marginal land from agricultural use,

(b) to assist farmers wishing to withdraw from farming,

(c) for implementing an agreement with the federal government,

and, (d) for conservation or managment of any natural resources program.

The Lieutenant Governor in Council may make regulations providing for

(a) land development loan guarantees, and

(b) principal and/or interest guarantees relating to loans for developing projects directly beneficial to agriculture.

The DA administers 58 Acts, three of which are jointly administered with other departments (Environment; Energy and Natural Resources; and Municipal Affairs). Those Acts considered to have only a minor effect on habitat loss are not discussed.

Grants and cost-shared agreements with Canada (discussed under federal programs) provide farmers with monetary incentives to encourage increased agricultural production. In 1977-78, Alberta farmers saved over $18 million in the farm fuel transportation program. In the same year, almost 800 farmers in the Peace River District applied for financial assistance (maximum allowed $2,000 per farmer) under the forage freight assistance program. In addition, 7,780 producers applied for $27 million in cash advances (to a maximum of $6,000 per producer at 7 percent interest) in 1977-78 under the cow-calf advance program.

Two additional programs provided under the Department of Agriculture Act, communications and extension, undoubtedly have a tremendous effect on the public. The communications program informs the public of the DA's policies, programs and developments. This is accomplished by brochures, bulletins, fact sheets; weekly news packages (Agri-News) which also are directed to media sources; daily radio programs aired on several stations; and television programs. The extension program serves as the "delivery system" for Agriculture's programs. In 1977-78, 90 district agriculturists and 60 home economists assisted the farming public through both individual and group situations.

3. Drainage Districts Act

This Act provides the authority under which Drainage Districts are constituted, managed and operated. General provisions include powers of the board, officers of the board, the drainage council, offences and penalties. The municipalities have the responsibility of taking action against farmers who may undertake illegal drainage activities. It is unlikely that this happens, however, because councillors and board members are reluctant (as they are in Manitoba) to take action against their neighbours. A major study in 1977-78 was undertaken by the engineering field services branch to determine the physical, administrative and legal restrictions affecting drainage of farmland (Alberta Agriculture 1978). Farmers interested in draining wetlands to increase their productivity received limited assistance (technical in 1977-78) pending the results of the study. Such a study suggests that illegal drainage is occurring, but not enforced. Although the magnitude of such drainage may not be revealed in the above study, the point is that drainage on private land will continue if legislation is either permissive or not enforced.

4. Irrigation Act

This Act establishes a five-member Irrigation Council to advise and control irrigation districts; provides for the formation of new districts, changes in an area or amalgamation of districts, boards of directors, assessment, irrigation rates and water damage claims; and covers expropriation of land required. The Minister of Agriculture is chairman of the Council. An Irrigation Council Advisory Committee (ICAC), appointed by ministerial order in 1973, makes recommendations

to the Irrigation Council. An Irrigation Secretariat, which serves as Secretary to the Irrigation Council, is responsible for a sound irrigation policy for Alberta and administers the province's irrigation program in 13 organized irrigation districts. It also administers cost-sharing agreements with Alberta or Canada for irrigation rehabilitation programs.

Irrigation programs are geared to improve water use efficiency and water management as well as expand irrigation in Alberta. In 1977-78, irrigation grants were over $6.8 million and irrigable acreage was increased by 115,000 acres (46,000 ha).

Irrigation in southern Alberta is becoming an increasingly important part of agriculture. In 1900, about 3,600 acres (1,457 ha) were irrigated compared to nearly one million acres (404,700 ha) in 1977-78. This represents over half of Canada's total irrigated land area. A $200 million allocation of funds from the Alberta Heritage Fund ensures continued expansion of irrigation in southern Alberta in the next decade. Within the 13 irrigation districts, potential irrigable land is estimated to be 1.5 million acres (607,050 ha). An additional 4 million acres (1,618,800 ha) adjacent to, but outside the irrigations districts, are potentially irrigable. Within the last two years, private irrigation (outside the existing irrigation districts) has increased greatly. Department staff (Agriculture and Environment) as well as the Prairie Farm Rehabilitation Administration have not been able to process, as quickly as desired, the increased number of water licence applications for private irrigation.

Irrigation farming is both capital and energy intensive. It is estimated that if the users of irrigation had to bear the full cost of

irrigation, use would drop by 50 percent (Zittlau 1979). An additional cost involved in irrigation is the reclamation of land that has become saline as a result of irrigation. In 1977-78, farmers submitted 110 requests for advice on salinity and drainage problems.

The wildlife habitat base on irrigated land is further reduced by land levelling activities. During the past seven years, over 40,000 acres (16,188 ha) of land have been levelled to improve irrigation efficiency. This effectively eliminates seasonal wetlands (types one, two and three).

It is unlikely that CWS can exert any influence to curtail the expansion of irrigation projects, particularly when irrigation has the potential of increasing crop production four-fold as reported in the Western Producer (1979). But, through an extension program, CWS could help point out the benefits to agriculture and wildlife of growing forage crops on saline or saline susceptible soils.

5. Water Resources Act

Under this Act, the Minister of Environment authorizes projects relating to drainage, irrigation, water power, water supply, river control, flood control and ground water supply. The Act also provides that "no person may divert or use any water or do anything that interferes with or is capable of interfering with present or future development, conservation or management of water". Programs under this Act include the following:

(1) Water management for irrigation use and other uses. Involved here are rehabilitation of irrigation headworks and canal systems and the development of water supplies for irrigation, industry

and other uses.

(2) Drainage and flood control.

(3) Lake level, lakeshore, river and channel stabilization. Projects have involved the cooperation of the Alberta Fish and Wildlife Division.

(4) Stream erosion control. This involves bank erosion problems caused by channel shifting or channel encroachment.

(5) Dam safety. This provides for continuing inspection of water resource projects.

(6) Farm surface water program. Of almost 1,000 requests for inspections of water-related programs, 176 were under this program.

(7) River basin project studies. These are aimed at ensuring an inter-disciplinary and multi-agency approach to major water resource projects.

Water Resource Management expenditures for all activities in 1976-77 totalled $28.3 million. The proportion of this amount directed specifically at projects related to the agricultural benefit at the expense of wildlife habitat is unknown. However, as indicated under the Drainage Districts Act and the Irrigation Act, a substantial portion is attributed to irrigation projects.

6. Soil Conservation Act

The authority for soil-conservation control measures and remedial work is provided by this Act. The responsibility for instituting these measures is given to the municipal councils. Furthermore, municipalities are responsible for passing bylaws to control or prohibit the removal of top soil and to prevent the burning of straw

and stubble on land.

The only program identified under this Act is the soil conservation and reclamation program. The primary objective of the program is to make the public more aware of farming practices that result in soil deterioration and erosion. The program consists of a combination of Department of Agriculture projects demonstrating erosion control and reclamation techniques, advisory services and grants for approved projects undertaken by municipalities and farmers. The magnitude and success of this effort is unknown. It is a positive approach in that it offers an incentive to practice good farming techniques. The major weakness of this legislation, however, is having municipal councils responsible for its enforcement. As stated in the discussion of the Drainage Districts Act, councillors choose not to take action against neighbour farmers whose farming practices are contrary to good land management.

Two factors should be considered to provide more incentive for farmers to practice good land management. The legislation should be changed to remove its enforcement from the municipalities. Department of agriculture staff would be in a better position to handle the enforcement. Secondly, CWS input by way of extension work, in cooperation with agriculture extension staff and cooperating model farmers, should be provided to point out and show the advantages of practicing full-time soil conservation practices. This would include activities such as less summerfallowing, reduced tillage, zero-tillage and no burning.

7. Public Lands Act

This Act, governing the disposition of public lands, outlines the powers of the Minister of Energy and Natural Resources and covers notification, dispositions, the recovery of rent and unauthorized use of public lands. The following provisions are covered by the Act:

(1) leases for lands of established grazing capacity may be issued for no longer than 20 years and for an area not larger than considered sufficient to graze 600 head of cattle,

(2) the Province may operate community grazing reserves and recognize grazing associations, and

(3) public land must not be sold to a person who is not a Canadian citizen or to a corporation which is not a Canadian corporation.

The Lands Division of the Department of Energy and Natural Resources administers lands for grazing, provides range management expertise and provides financial assistance for range management programs. It also leases and sells public lands for agriculture, commercial, industrial or recreational use. Programs under the Public Lands Act include the following:

(1) Grazing Reserve Program

In 1977, there were 13 grazing reserves involving 284,400 acres (115,097 ha) in northern and central Alberta, and 5 grazing reserves covering 166,600 acres (67,423 ha) in the southern part of the province. Development and improvement activities (bush removal by spraying, burning and clearing; breaking and seeding; dugout construction and fencing) in 1976-77 on these reserves cost $10

million. Over the next 10 years, an additional 20 new grazing reserves are planned for development in the grey wooded and northern areas. This proposed expansion results from a $26 million allocation from the Heritage Savings Trust Fund.

(2) Federal-Provincial Range Improvement Grant Program

In 1976-77, there were over 6,400 grazing leases and permits involving 5.7 million acres (2,306,790 ha) of Crown land. For range improvement eligible lessees received up to $30 per acre ($75 per ha). This program terminated at the end of 1978.

(3) Crown Land Sale Program

During 1975-76 and 1976-77, over 736,500 acres (298,062 ha) of Crown land were sold to farmers to expand their farming enterprises. Details relating to eligibility and conditions of sale are not known.

8. Crown Cultivation Leases Act

The Minister of Energy and Natural Resources is empowered under this Act to :

(a) exempt Crown cultivation leases from assessment and taxation under certain statutes, and

(b) pay school boards and municipalities specified percentages from money received as rent from leases.

Provisions regarding assessments, taxation and governing leaseholds partly under crop share are contained in the Act. Under both this Act and the Public Lands Act, 495 leases and permits in 1976 resulted in the cultivation of over 77,500 acres (31,364 ha) of Crown

land.

9. Special Areas Act

This Act provides for the administration of all public land within a special area and identifies the powers, functions and duties of the Minister of Municipal Affairs, Lieutenant Governor in Council and special area boards. Some of the activities under the Minister's powers are:

(1) Any manner of land dealing considered detrimental to the residents may be prohibited.

(2) Public lands may be leased at fair and equitable rentals.

(3) Lands may be set aside for community purposes such as grazing reserves, hay reserves, water reserves and irrigation.

(4) Any owner or occupant of land may be required to adopt practices considered necessary to prevent soil and water erosion and overgrazing. In 1976-77, 1,300 acres (526 ha) of abandoned cultivated land were rebroken for regrassing. Over 5,300 acres (2,145 ha) were in various stages of improvement under the regrassing program for community pastures.

The above described programs under the Public Lands Act, the Crown Cultivation Leases Act, and the Special Areas Act, have as their primary objective the expansion of livestock production. The movement toward a greater land base for pasture, forage and mixed-grain production ensures increasing loss of migratory bird habitat. CWS will find it difficult to slow down this movement.

In effect, legislation will have to be modified. The existence

of abandoned cultivated public land emphasizes the fact that Crown land is being improperly managed. The provision of Crown land for increased livestock production along with a number of monetary incentives relating to livestock production underlines the need for a change in federal policies and programs, which (as discussed later) exert considerable influence on provincial programs.

10. Agricultural Development Act

Established under this Act is the Alberta Agricultural Development Corporation to provide both financial and educational assistance to Alberta farmers, agricultural businesses and agricultural industries in order to improve the quality of rural life in Alberta, help preserve the family farm and make rural centres into more viable entities. The Corporation makes loans from the Agricultural Development Revolving Fund with a limit of $150 million as the total amount of advances outstanding at any time. Repayment terms on loans must not exceed 40 years. Loans are made for:

(a) purchasing land,

(b) making permanent improvements to increase productive value of land,

(c) purchasing agricultural implements or farm machinery,

(d) purchasing livestock,

(e) improving, constructing or extending farm buildings,

(f) maintaining adequate operating capital,

(g) establishing, developing, or maintaining secondary agricultural industries, and

(h) any purpose related to establishing or maintaining a farm

unit as approved by the Corporation.

The Act also provides for agreements with Canada to make available to Alberta funds to be used for the purposes of the Act. Nine programs aimed at fulfilling the purposes of this Act are outlined below:

(a) **Direct Loan Program** - Long term loans up to $150,000 to farmers unable to obtain long term credit from other sources.

(2) **Production Development Program** - Loans to farmers with assets under $100,000 including new loans with interest rebates of 2 percent of outstanding principal for 5 years.

(3) **Beginning Farmers' Program** - Loans to young potential farmers whose assets including the loan do not exceed $125,000.

(4) **$50,000 Guaranteed Loan Program** - Government guarantees short-term money made available by lending institutions.

(5) **Small Farm Development Program** - Loans to assist marginal and sub-marginal farmers (assets less than $75,000) to improve their livelihood or choose alternative occupations.

(6) **Native Range Improvement Program** - Loans up to $50,000 with incentive rebates on loans of $6,000 and over.

(7) **Dairy Development Incentive Program** - Loans up to $50,000 with incentive rebates on loans of $12,000 and over.

(8) **Ewe Lamb Retention Program** - Grant of $15 per sheep to a maximum of 200-head increase.

(9) **Sheep Producers' Incentive Rebate Program** - Incentive rebate of $40 per $1,000 of loan.

The magnitude of provincial financial assistance provided by the above programs to farmers and ranchers in Alberta is substantial. In

1977-78, a total of $107 million was received by 10,400 primary producers requesting financial assistance. From 1972 to 1978, total financial assistance was almost $655 million. Unquestionably, this is a lot of incentive to expand and intensify agricultural production, at the expense of habitat loss on both private and Crown land.

Unless farmers are offered monetary incentives to protect and maintain habitat for migratory birds on land they own, the likelihood of preserving habitat on private lands is, unfortunately, rather slim. It is unlikely that legislation will be passed (soon enough) to preserve the remaining habitat on private land. Changes in legislation to preserve habitat on Crown land may be an alternative. In effect, this applies to provincial legislation only; the federal government does not have this option, as a result of the Resources Transfer Act (1930). However, CWS influence could be exerted through cost-sharing programs between Agriculture Canada and Alberta Agriculture. This would require CWS involvement with agriculture staff in order to secure greater consideration for wildlife habitat under federal-provincial cost-shared development agreements.

In addition, CWS influence could be exerted by more involvement in cooperative activities with the Alberta Fish and Wildlife Division. This also means greater cooperation at the senior levels of the two wildlife agencies. There are currently no federal-provincial agreements in the prairies for habitat activities, despite the common objective (habitat preservation) of CWS and provincial wildlife agencies.

11. Federal-Provincial Farm Assistance Act

This Act enables the Minister of Agriculture to enter into agreements relating to:

(a) farm or other land use and conservation, including irrigation and water development,

(b) farm credit,

(c) crop insurance,

(d) rural development projects, and

(e) the organization and use of workers for farming and related industries.

A number of programs involving federal-provincial agreements are discussed under federal policies and programs.

12. Hail and Crop Insurance Act

Under this Act, the Alberta Hail and Crop Insurance Corporation is established and an agreement with Canada is permitted, pursuant to the Crop Insurance Act (Canada).

The Corporation offers two programs:

(1) straight hail insurance, and

(2) all-risk crop insurance against major crop loss caused by all natural hazards.

In 1977, 20,810 farmers paid almost $19 million in premiums for $277 million worth of protection and recovered almost $39 million for losses. One-half of the premium paid for crop insurance is paid by the federal government.

13. Feeder Associations Guarantee Act

This Act provides government guarantee of loans made to members of livestock feeder associations. The maximum term of such loans is one year or a shorter time as agreed by the association and the lender. In 1976-77, over 1,200 members representing 43 feeder associations purchased $13.2 million worth of livestock (cattle and sheep) for feeding and/or finishing.

14. Alberta Agricultural Research Trust Act

The Alberta Agricultural Research Trust, incorporated by this Act, receives property and money for provincial expansion of applied and fundamental agricultural research. The trust fund is managed by 12 appointed trustees and the Deputy Minister of Agriculture, the chairman of the group.

In 1977, the research trust fund supported 24 projects including departmental and cooperative programs with Agriculture Canada and the University of Alberta. A number of these projects dealt with shallow subsurface drainage designed to lower the water table and reduce soil salinity - a direct result of irrigation, which is still being expanded in the province. An ongoing soil productivity and fertilizer use program involved applied research to improve both grain and forage crop production.

15. Agricultural Relief Advances Act

This Act provides authority for and guarantee of borrowings for supplying commodities to necessitous farmers. Municipalities must make these commodities (seed grain, feed grain, fodder, fuel oil and

lubricating oil) available. Money borrowed must be paid within 12 months. In 1976-77, the Tax Recovery Branch of the Department of Municipal Affairs attempted to collect $65,000 in outstanding accounts relating to agricultural relief advances issued in improvement districts. It is not known whether outstanding accounts exist in other municipal areas of the province.

Legislation providing technical, advisory, promotional and financial assistance relating to marketing, agricultural cooperatives and societies, as well as production (crops and livestock), is briefly outlined below.

16. Marketing of Agricultural Products Act

This Act establishes the Agricultural Products Marketing Council and provides for the creation of marketing boards and marketing commissions and regulation of agricultural products. The Marketing Services Division of Alberta Agriculture provides encouragement, assistance and support to producers and agribusiness in developing domestic market opportunities. Also, an international marketing group of Albertans was actively engaged in optimizing exports of Alberta's agricultural commodities.

17. Wheat Board Money Trust Act

A trust fund established under this Act is used primarily to encourage and develop cooperative markets, grants for prizes or scholarships and grants to cooperative societies. At any one time, the total amount of grants and advances outstanding must not exceed $50,000. In 1977, $14,000 was donated to the 4-H council and $7,300

was provided for scholarships and bursaries.

18. Agricultural Societies Act

Agricultural Societies, as provided under the Act, encourage improvements in agriculture, horticulture, homemaking, manufacture and the useful arts. Grants are provided for capital and operating costs. One-time capital grants of $7.25 million are available for Class A fairs. Operating cost grants for these fairs are $100,000. Smaller fairs are eligible for proportionately less financial assistance.

19. Agricultural Service Board Act

Under this Act, agricultural service boards are established and agricultural fieldmen are appointed to initiate and implement programs dealing with weeds, pests, soil and water control in municipalities. These programs involve joint participation by provincial and municpal governments. Grants are provided on a share basis with local governments.

20. Weed Control Act

This Act provides for the appointment of weed inspectors and for the control of noxious weeds. Grants to municipalities are available. In 1977-78, these grants were over $1.2 million.

21. Livestock Diseases Act

Establishment and administration of disease-control areas is provided by this Act. Municipalities with warble control programs received $88,260 in grants during 1977-78. The Veterinary Services

Division provided information on prevention, control and treatment of disease. Financial compensation was received by producers who submitted 996 claims in 1977 under the livestock disaster and indemnity program.

22. Municipal Taxation Act

Under Section 25(1), certain property is exempted from assessment and taxation by a municipality. Exemptions include: farm buildings, growing crops and irrigation works as defined by the Irrigation Act. The magnitude of benefits to farmers, as provided by this Act, is not known.

23. Municipal Government Act

The Minister of Municipal Affairs is empowered, under this Act, to confer upon municipal councils certain powers and duties of interest to agricultural authorities. Among other powers, municipal councils may pass a bylaw authorizing cash advances to farmers unable to procure certain required commodities (seed, feed, or other commodity considered essential), because of adverse weather conditions. The magnitude of benefits, as provided under this Act, is not known.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR ALBERTA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
1. Planning Act	Minister of Municipal Affairs	Integrated Resource Management				Examine new Planning Act and determine provisions for habitat protection.
2. Dept. of Agriculture Act	Minister of Agriculture					Examine programs and investigate cooperative research and extension opportunities.
		Communications Program Inform the public of Alberta Agriculture programs, policies, developments.	All members of the farming community. Agricultural organizations.	Provide information.	In 1977, over 1000 publications (brochures, bulletins, fact sheets) were available; weekly news package, Agri-news, provided 528 articles to more than 187 media sources and 3,979 recipients; 261 daily radio programs were aired on 16 stations in Alberta and Saskatchewan.	Extension program to communicate information to farmers regarding the need for habitat for migratory birds.
		Extension Program Serve as the "delivery system" for Alberta Agriculture's programs.	All members of the farming community	Individual contact with farmers, meetings, short courses, field days and conferences.	1977-78: Assisting the farming public were 90 district agriculturists, 60 district home economists and 7 regional 4-H specialists.	Extension program would be good outlet for CWS Handbook.
3. Drainage Districts Act	Minister of Environment			Technical assistance for drainage.		Examine specifics of the Act and review 1978 Dept. of Agriculture Drainage Report. Determine extent of habitat loss resulting from illegal drainage.
4. Irrigation Act	Minister of Agriculture	Irrigation Services Improve water use efficiency and water management. Expand irrigation in southern Alberta.	Irrigation Districts, Farmers	Improved irrigation efficiency. Expansion of irrigation. Grants and technical assistance.	In 1977-78, $6.8 million in grants; total irrigable acreage increased by over 15,000 to a new high of 940,000.	Determine net habitat loss (e.g. wetlands drained and levelled minus water bodies created).
5. Water Resources Act	Minister of Environment			Drainage and flood control. Water management for irrigation and other uses. Farm surface water control.	Water resources management expenditures totalled $28.3 million in 1976-77.	Examine programs further and determine extent of habitat loss resulting from each program. Seek membership on key committees to ameliorate impact of these programs on habitat.
6. Soil Conservation Act	Minister of Agriculture	Soil conservation and reclamation. Make public more aware of farming practices which result in soil deterioration and erosion.	Municipalities and farmers	Demonstration projects on erosion control and reclamation techniques.		Review municipal bylaws to determine municipal effort to discourage abusive land management practices. Encourage stricter control of these bylaws. Develop cooperative extension programs.
7. Public Lands Act	Minister of Energy and Natural Resources	Grazing Reserves Crown Land Leases			18 reserves controlling 451,000 acres. Development improvement costs $10 million in 1976-77. 20 new reserves to be developed over next 10 years.	Determine extent of habitat loss resulting from each program. Seek membership on Crown land-use committees. Develop mutually acceptable habitat programs for community pastures.
		Crown Land Sale Program Assist farmers expand farm enterprise. Community Pastures	Farmers		736,576 acres sold involving 3,384 transactions occurred in 1975-1977.	

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR ALBERTA

	LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
8.	Crown Cultivation Leases Act	Minister of Energy and Natural Resources	Crown Land Cultivation Program Assist farmers expand their operations.	Farmers	Exempts Crown land cultivation leases from assessment and taxation.	In 1976-77, 495 cultivation leases and permits involved 77,500 acres of land.	Request that suitable habitat for migratory birds be set aside by Alberta.
9.	Special Areas Act	Minister of Municipal Affairs	Special Areas Act Provides for the administration of all public land within special areas. Provides for control of land use to prevent soil erosion and overgrazing.		Reclamation of abandoned cultivated land. Water management.	In 1976-77, 1,300 acres of abandoned cultivated land were rebroken for regrassing and 5,303 acres were in various stages of improvement for community pastures.	Try to influence Alberta as to which areas will be leased for cattle. Improve portion of land for cattle in exchange for no grazing on designated portions for migratory birds.
	Department of Agriculture Act	Minister of Agriculture	Farm Fuel Transportation Program	Farmers		$1.8 million provided in rebates to farmers.	
			Cow Calf Cash Advance Program	Cow-calf producers	$75 per calf on 80% of calves in a herd to a maximum of $6,000 at 7% interest.	Applications were received from 7,780 producers for $27 million in 1977-78.	
10.	Agricultural Development Act	Minister of Agriculture	Improve the quality of rural life and preserve the family farm and make rural centres viable entities.				
			Direct Loan Program Provide long term credit to primary producers.	Farmers unable to obtain long term credit from other sources.	Up to $150,000 based on demonstrated need and potential management ability.	During 1977-78, 10,000 primary producers requested financial assistance involving $107 million for all programs under the Agricultural Development Act.	
			Production Development Program Financial assistance to intensify production.	Farmers with under $100,000 assets including new loans. 50% of net income from farm.	Funds available at prime interest rate plus 1%. Interest rebate of 2% of outstanding principal for 5 years may be available.		
			Beginning Farmers' Program Assist young potential farmers to become established in farming.	Young person with 3 years farm experience or equivalent in college and farm experience.	Loan to be used for land, machinery, livestock and improvements. Total assets after loan not to exceed $125,000.		
			$50,000 Guaranteed Loan Program Make short and intermediate term money more readily available to farmers.	Determined in individual cases by lending institutions.	Funds available at prime plus 1% interest.		
			Small Farm Development Program Assist marginal and sub-marginal farmers to improve their livelihood to become commercially viable or choose alternative occupations.	Farmers with less than $75,000 assets.	Special credit for buying and selling land, vendors' grants and farm management services to provide information to farmers.		
			Native Range Improvement Increase native range productivity.	Farmers and ranchers	$50,000 under credit loan program. Incentive rebate payments on loans of $6,000 and over.	Provided assistance to more than 1,700 farmers.	
			Dairy Development Incentive Program Promote and develop viable dairy operation.	Farmers who supply dairy products to a licensed manufacturer.	$50,000 under credit loan program. Incentive rebate payments on loans of $12,000 and over.		
			Ewe Lamb Retention Program Encourage sheep production.	All sheep producers	Grant of $15 for each sheep retained that results in an increase in a sheep flock over 15% replacement level. Grants paid on a maximum of 200-head increase.	In 1976, of 276 applications received, 200 were approved involving $133,598.	

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR ALBERTA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
10. (Cont'd) Agricultural Development Act		Sheep Producers' Incentive Rebate Program	Sheep producers	Incentive rebate of $40 per $1,000. One-year deferment of loan payment.		
11. Federal-Provincial Farm Assistance Act	Minister of Agriculture	Enabling legislation for the minister to enter into federal-provincial agreements.				CWS influence could be exerted through cost-sharing programs between Agriculture Canada and Alberta Agriculture in order to receive greater consideration for wildlife habitat under fed-prov. cost-shared development agreements.
12. Hail and Crop Insurance Act	Minister of Agriculture	Provide greater stability in returns to Alberta farmers.	All farmers	Hail insurance and all-risk crop insurance.	20,810 farmers paid $19 million in premiums and recovered $39 m for losses. Federal government share $19 m.	Change premium rates to favour continuous cropping practises. Present practice favours summerfallowing.
13. Feeder Associations Guarantee Act	Minister of Agriculture		All feeder associations		43 associations purchased $13.2 m worth of livestock.	
14. Alberta Agricultural Research Trust Act	Minister of Agriculture	Alberta Agricultural Research Trust Fund Provides funds (private and public) for departmental and cooperative research programs with Agriculture Canada and University of Alberta.			24 projects supported by fund in 1977.	
15. Agricultural Relief Advances Act	Minister of Municipal Affairs	Agricultural Relief Advances Program Provides authority for and guarantee of borrowings for supplying commodities to necessitous farmers.	Municipalities with necessitous farmers	Covers seed grain, fodder, feed grain, fertilizer, fuel oil and lubricating oil. Maximum seed provided is amount required to seed 450 acres.		
16. Marketing of Agricultural Products Act	Minister of Agriculture	Provides for the creation of marketing boards and commissions and regulates sale of agricultural products.		Provides support to producers and agri-business in developing domestic markets.		
17. Wheat Board Money Trust Act	Minister of Agriculture	Wheat Board Money Trust Fund Income of the trust is to be spent primarily on the encouragement and development of co-operative markets, grants for prizes or scholarships and grants to cooperative societies.			$14,000 donated to 4-H Council and $7,300 provided in scholarships and bursaries.	
18. Agricultural Societies Act	Minister of Agriculture	Agricultural Societies Program Encourage improvement in agriculture and homemaking. Enhance rural living by assisting communities.	General public and rural communities	Financial and resource assistance in support of Society functions. Operating grants for Class A fairs $100,000; Class B fairs $50,000. One-time capital grants Class A fairs $7,350,000 Other fairs $75,000		CWS participation to promote conservation oriented activities in agricultural societies.
19. Agricultural Service Board Act	Minister of Agriculture	Establishes agricultural service boards and fieldmen to deal with weeds, pests, soil and water control.	Municipal governments	Grants are provided on a shared basis with municipal governments.		Examine programs and determine impact on habitat.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR ALBERTA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
20. Weed Control Act	Minister of Agriculture	Provide information and advice for control of weeds.	Farmers, municipal governments and allied industries	Grants provided on a shared basis.	In 1977-78, municipal governments received $1,257,000 in grants.	
21. Livestock Diseases Act	Minister of Agriculture	Warble Control Control warble infestations in livestock.	Livestock producers in areas where local governments initiate programs.	50% of administrative cost plus grant on a per cattle farm basis.	In 1977-78, municipal governments received $88,260 in grants.	
22. Municipal Taxation Act	Minister of Municipal Affairs	Municipal Taxation Act Exempts certain agricultural property from assessment and taxation by a municipality.				
23. Municipal Government Act	Minister of Municipal Affairs	Municipal Government Act Includes provision for councils of municipal districts to pass bylaws permitting cash advances to farmers unable to procure certain required commodities for farming because of adverse conditions.				Encourage amending the Act to protect marginal and unbroken arable lands.

FEDERAL LEGISLATION AND PROGRAMS

As indicated in the introduction, federal legislative powers are primarily for creating institutions such as marketing, transportation, trade and funding agencies. Other legislative powers include those of standards, grading, inspection, licensing as well as other activities not considered significant to this discussion.

Outlined below are federal acts and programs that have an indirect effect on land use and habitat loss. Most of these acts and programs are administered by the Department of Agriculture. Other departments involved are Regional Economic Expansion; Transport; Industry, Trade and Commerce; Finance; and Revenue.

1. Department of Agriculture Act

Under this Act the Department of Agriculture is established. The Minister of Agriculture is responsible for maintaining the well-being of Canadian agriculture; establishing experimental stations for research and experimentation for the betterment of farms, farmers and their produce; assisting the arts and manufactures of farms and farmers; and other duties as seen fit by Cabinet.

The Department of Agriculture administers a wide variety of programs which extend from the "farm gate to the consumer", as provided by 38 Acts of Parliament (Agriculture Canada 1978). Specific programs under the Department of Agriculture Act are outlined below:

(1) Domestic Agricultural Market Development

In order to expand domestic markets, projects for promoting and developing markets are implemented. These activities benefit the

farmer, the food service and distribution industry as well as the retail trades.

(2) Market Development - Agricultural Products

Market analyses, research and market intelligence activities are conducted to expand both domestic and export sales of Canadian agricultural products. Producers, producer organizations, agri-business groups and governments (provincial and foreign) benefit from this program.

(3) Agricultural and Food Products Market Development Assistance Program

Canadian companies, associations and universities receive funds for undertaking market feasibility and development projects to encourage sustained growth of domestic and export markets.

(4) International Trade - Agricultural Products

By analyzing and developing Canada's position and strategy in multilateral negotiations and bilateral trade problems, the federal government aims to maximize Canada's agricultural export and domestic market potential. This program involves the departments of Industry, Trade and Commerce; Finance; and External Affairs.

(5) Agricultural Exhibitions Loans

Exhibition corporations recognized under a Provincial Agricultural Associations Act or Agricultural Societies Act receive financial assistance for multi-purpose buildings for year round activities. Capital loans up to 90 percent of the approved cost are available to finance new buildings or improvement of existing facilities. The maximum term of these loans is 30 years.

(6) 4-H Clubs Assistance

Agreements with each province provide for reimbursement up to 50 percent of their expenditures on specified items for support to 4-H Club councils. Items covered include prizes, 4-H materials, travel to provincial elimination contests and voluntary local leadership training.

(7) Agricultural Production Research

In order to increase the efficiency and productivity of Canadian agriculture, the federal government places considerable emphasis on research - over half of the country's agricultural research is carried out by the Research Branch of Agriculture Canada. Research on soils, plants, animals, plant and animal products, pests and diseases and their control is conducted at research stations, research institutes, experimental farms (established under the Experimental Farm Stations Act) and project farms in the prairies as well as in the other provinces. In addition, cooperative research, funded by cost-shared agreements, is carried out with provincial departments of agriculture. The magnitude of these cost-shared research activities is not known. Research contract programs of Agriculture Canada have involved annual budgets approaching $4 million. One of these contract programs, land evaluation, was designed to classify and describe the land resource in terms of its most effective use, as influenced by the interacting factors of soil quality and climate. This information was considered essential for apportioning land among agricultural, urban, industrial and recreation uses.

(8) **Extension and Information Services**

Although the BNA Act of 1867 allocates the responsibility of extension to the provinces, the federal government is involved in some extension work. Because extension provides feedback to researchers, Agriculture Canada does engage in some extension work. About 5 percent of research branch activities (including experimental farms and research stations) are devoted to extension work.

All channels of communication are used to keep the agriculture industry and the public informed about the policies, programs and activities of the Department. In addition to providing information, public opinions and attitudes toward departmental operations are assured. Mass communications involve a wide variety of materials for the press, radio and television. Daily and weekly items of interest reach farmers, consumers and agribusiness. Weekly and monthly news items are published in prairie newspapers as well as the Department's own publications, "News and Features" and "This Month with Agriculture Canada". Direct communications fulfill requests for information from the public. In 1977-78, over 95,000 letters and over 275,000 telephone calls were received requesting information. As well, 3.3 million copies of publications (involving 345 new, revised or reprinted publications) were distributed and 6 policy- explaining pamphlets in the "Farm Letter" series were sent to 330,000 farmers.

The primary objective of the above eight programs is the enhancement of the agricultural industry. Improved techniques and incentives (discussed later) for increasing agricultural production and improved markets, both domestic and foreign, for agricultural

products are mutually stimulatory. Increased agricultural production and markets create more jobs for Canadians, particularly in the food-processing industries. Therefore, agriculture's efforts are supported by other federal and provincial departments. Consequently, the task of influencing these programs to protect wildlife habitat is even more difficult.

2. Farm Products Marketing Agencies Act

This Act establishes the National Products Marketing Council and authorizes the establishment of national marketing agencies for farm products. The council, consisting of appointed members from Western, Central and Atlantic provinces, is to ensure that marketing agencies maintain efficient and competitive production and obtain a fair return for producers. Agricultural commodities that connot be marketed effectively under the jurisdiction of provincial marketing boards may be marketed by the establishment of a national agency. Grants may be provided to help defray initial operating and establishment costs.

3. Agricultural Products Marketing Act

Provincial marketing boards or agencies may be authorized to control marketing of their products outside their province. The federal government delegates certain powers (right to fix, impose and collect levies) to permit regulation of products produced and to use these levies for payment of expenses and losses and the creation of reserves.

4. Agricultural Products Board Act

The Agricultural Products Board, established by this Act, administers contracts with other countries to buy or sell agricultural products. Surplus Canadian agricultural products may be purchased thus providing price support to Canadian producers.

5. Agricultural Products Cooperative Marketing Act

Under this Act, producers of agricultural products may organize to form cooperatives to handle or market their crops or livestock or supply the goods and services required in farming. Farmers are guaranteed cash advances on their deliveries even though the products are not sold immediately. These initial payments are based on an estimate of wholesale market prices and marketing costs for the products.

6. Farm Credit Act

Long-term mortgage credit to farmers is provided by the Farm Credit Corporation established by this Act. Three types of loans are available:

(1) Standard Farm Loans

Applicants over 45 years old are permitted a maximum of $100,000 or 75 percent of appraised value of land and buildings. Applicants under 45 years old are permitted a maximum of $100,000 or 75 percent of appraised value of land, livestock and equipment.

(2) Loans to Young Farmers

Applicants under 35 years of age may borrow up to $150,000 or up to 100 percent of market value of land, livestock and equipment.

(3) Loans to Establish Young Farmers

Applicants under 35 years of age may borrow up to the same limits specified in type (2) loans above, but must demonstrate that their principal occupation will be farming within five years.

The small farm development program, established under the Farm Credit Act, provides grants up to $3,500 to small-farm owners who wish to purchase more land (or enter non-farm operations). This program was set up to help preserve the family farm which is considered to be the most desirable and efficient type of farming operation.

7. Farm Improvement Loans Act

Short and intermediate-term loans to farmers for improvement and development of farms is ensured. Approved improvement and development includes clearing and breaking land, drainage works and irrigation systems. The government guarantees loans made by commercial banks and other designated lenders. For the first half of 1979, farm improvement loans totalled $134.4 million. The prairie provinces' portion of this amount is not known.

Farmers borrowing under provincial government programs are still eligible for federal government loans. In effect, therefore, government approved credit available for a farmer under 35 years of age is in the neighbourhood of $250,000. As pointed out in the Saskatchewan section, loan interest for land, livestock and equipment

purchase is the greatest expense for farmers. Because of this debt, farmers are forced to expand their operations to increase their income. As a result, wildlife habitat losses are intensified.

8. Farm Syndicates Credit Act

Groups or syndicates of three or more farmers may borrow up to 80 percent of the cost of machinery, buildings and equipment. Maximum loans are $15,000 per member or $100,000 whichever is less. Indian bands engaged in farming are eligible for such loans by agreement with the Minister of Indian Affairs and Northern Development.

9. Canadian Wheat Board Act

The Canadian Wheat Board (CWB) and an Advisory Committee, established under this Act, is authorized to market Canadian-grown grain in interprovincial and export trade. The Board has the power to acquire, store, transfer, transport or dispose of grain. In order to control the orderly movement and marketing of grain at a reasonable price, the Board issues permit books, sets grain delivery quotas, and provides for the allocation of railway cars at grain elevators. The Board may pay producers for storing grain on their farms an amount equal to storage charges (per bushel) in country elevators. It may also provide deferred delivery permits to farmers unable to deliver grain the preceding year.

The Act, solely or in conjunction with other acts (identified below), authorizes the following programs and/or policies:

(1) Prairie Grain Advance Payments Program

Wheat Board permit holders with grain (wheat, barley or oats) in

farm storage awaiting delivery can apply for interest-free cash advance payments to a maximum of $15,000. Advance payments are also available for unthreshed grain and drying damp or tough grain. This program is also authorized by the Prairie Grain Advance Payments Act.

(2) Initial Payment Guarantee

Producers and "interested parties" (unkown connotation) delivering under CWB permit books are guaranteed initial payments on wheat, oats and barley delivered to the CWB. These initial payments, as well as subsequent payments, are established on the basis of overall grain sales and expenditures in a crop year.

(3) National Feed Grains Policy

This policy provides a fair and equitable price to producers for feed grains which may be sold to the CWB or directly to livestock feeders and feed mills. The CWB coordinates transportation and stocks to meet domestic and export requirements. Livestock feeders in Eastern Canada and British Columbia are assured fair and equitable prices for feed grains under the Livestock Feed Assistance Act. Another objective of the National Feed Grains Policy is to encourage growth of grain and livestock production according to natural potential.

The implication of "natural potential" is more intense farming of existing cultivated land as well as bringing into production more pasture and forage on marginal Crown lands. Therefore, as suggested in the discussion of provincial agricultural programs, CWS will have to seek input into provincial programs designed to expand livestock production on marginal lands in order to protect from agricultural interests migratory bird habitat.

At the CWB's inception, quotas were applied only to seeded acreage and calculated for each grain. Today, additional factors are included in the quota allocation:

(1) land seeded to six quota grains,

(2) land in summerfallow,

(3) land seeded to miscellaneous crops, and

(4) land seeded to perennial forage up to a maximum one-third of the combined total of land in grains and oil seeds, summerfallow, and miscellaneous crops.

After the seeded acreage, summerfallow and perennial forage acreage has been combined to form the total acreage eligible for quota allotment, quota acres are assigned to each of the crops produced. The manner in which these quota acres are distributed is left to the discretion of the farmer. Since summerfallow acreage does not produce a crop and since perennial forage and miscellaneous crops are not marketed by the Wheat Board, the quota eligible land utilized for these purposes can be assigned to any of the six Wheat Board Crops.

Additionally, land which will be newly broken during the specified crop year can be reported. In the subsequent crop year, this land is classified as cultivated and becomes eligible for inclusion in the calculations of assigned acreage.

Zittlau (1979) recommended that the Grain Quota Allotment System be changed. He proposed three modifications:

(1) remove from the assignable acreage formula any provisions which encourage farmers to invade marginal lands,

(2) modify the practice of including cultivated summerfallow in the assignable acreage formula, and

(3) alter the assignable acreage calculation formula permitting the inclusion of natural pasture or uncultivated lands in quantities equal to a predetermined percentage of cultivated acreage.

10. Two-Price Wheat Act

This legislation stablizes wheat prices, guarantees producers a floor price for a specified period and protects consumers from high world wheat prices. Current world prices for wheat are close to $6 per bushel. Wheat consumed domestically has a current minimum (floor) price of $4 per bushel and a maximum of $5. A number of farm organizations are pushing for an increase in the maximum domestic price. In 1977-78, payments to prairie farmers under the Two-Price Wheat program amounted to $19.9 million.

A recent article in the Western Producer (1979) indicates that this Act, along with other legislation relating to food, will be under review this fall. If Canada is prepared to place a higher priority on helping to meet the needs of the world's hungry people, then even greater agricultural demands on the land resource will be made. The recent (September 4 to 7, 1979) Ottawa meeting of the World Food Council will have indicated Canada's present position.

11. Western Grain Stabilization Act

The primary objective of this Act is to protect prairie grain producers from large unexpected decreases in income caused by a fall in grain prices, substantial reduction in marketing and an increase in production costs. At the end of each year, the Minister of Agriculture determines if stabilization payments are to be made. Payments are made

to participating producers whenever the eligible net cash flow falls below the previous five-year average by more than one percent. Participating producers pay a levy of 2 percent of gross cash receipts to a maximum of $500 per year. The federal government contributes an amount double the producer levies. In 1977-78, participating producers contributed $60 million while federal contributions totalled $120 million.

12. Agricultural Stabilization Act

Agricultural commodities not covered under the Western Grain Stabilization Act are covered under this Act in order to provide farmers with a fair share of the national income and achieve a sound viable agricultural industry. These commodities include cattle, hogs, sheep, industrial milk and cream, corn, soybeans, oats and barley not produced in designated areas of the CWB (or oats and barley not marketed through the CWB) and processed agricultural products. The base price of an agricultural commodity in a year is based on a five-year average price. Producers are guaranteed a return on named or designated commodities of at least 90 percent of this average price. The total magnitude of this financial assistance is not known. One commodity, livestock, involved $1.4 million of federal assistance to Manitoba cow-calf producers in 1977.

13. Railway Act

Section 271 of this Act covers the Crow's Nest Pass Rates for transporting grain and flour. Freight rates on grain and flour shipped by rail from any point in Canada west of Thunder Bay to Thunder Bay,

Vancouver or Churchill are fixed at the Crow Rate established in 1897. It is estimated that farmers save $350 million annually as a result of this legislation. The current debate over maintaining or changing the Crow Rate deals not with dropping this vast subsidy, but whether or not prairie farmers should receive the subsidy directly. In any event, the present transportation system and the Crow Rate are considered by most informed groups as the major reasons for Canada's present inability to increase its grain exports by 50 percent, the desired goal of the federal government for the next decade. Part of this additional 50 percent for export is unsold grain that remains in storage on farms. However, the greater portion is undoubtedly additional grain that would be produced by intensifying production on existing cultivated land and breaking more land (pasture) both private and Crown.

There are virtually no viable options open to CWS to counteract such a strongly supported agricultural objective. A long-term plan for development of Canada's agricultural resources is currently being formulated. Involved in this effort are a number of provincial and federal departments and agencies.

14. Canadian Dairy Commission Act

The primary objectives of this legislation is to encourage efficient production of milk and cream, ensure producers with a fair return for labour and investment and provide consumers with an adequate supply of high quality dairy products. Among other powers, the Commission may make payments to milk and cream producers in order to stabilize prices of those products. Industrial milk producers in

Manitoba received $10.1 million in subsidies in 1977. The amount of subsidies in Alberta and Saskatchewan are not known.

15. Destructive Insect and Pest Act

This Act was replaced by the Plant Quarantine Act which was established to prevent the introduction or spreading of pests injurious to plants. Among other provisions, compensation may be provided for any plant or other matter destroyed or prohibited from sale or property restricted from use. Compensation is up to two-thirds of the value of the property destroyed.

16. Crop Insurance Act

The federal government provides financial assistance to the provinces for all-risk crop insurance to farmers. The objective is to help farmers protect themselves, at reasonable cost, against crop losses caused by hail, drought, flood, frost, plant disease or insects. Federal assistance is 50 percent of the premiums plus 50 percent of the administrative costs. When indemnities exceed accumulated premium income, loans or re-insurance on part of the risk are provided to the provinces. Crop insurance subsidies totalled $48.3 million in 1976-76. It is not known what percentage of this was for the prairie provinces only.

17. Prairie Farm Assistance Act

This Act provides for assistance to farmers in the spring wheat area of Canada in the event of a crop failure. Included in this area are certain Crown lands in northern Manitoba and Saskatchewan. Maximum

assistance available is $4 per acre on one-half the farmer's cultivated land up to a maximum of 200 acres. Awards made under this Act come from the Prairie Farm Emergency Fund. A one percent levy, for this fund, may be deducted from the price of grain purchased in the spring wheat area.

18. Income Tax Act

The major secions of agricultural interst include the following:

(a) computation of income, cash method and sale of business,

(b) disposal of animals,

(c) deductions for land clearing, land levelling and tile drainage,

(d) grain inventory sales,

(e) losses,

(f) capital gains,

(g) disposition of partnership land, and

(h) income averaging.

The most obvious benefit to farms that results in negative impact on habitat is deductibility of land clearing and levelling costs. The magnitude of this provision is not known. However, it should be remembered that present legislation provides a double monetary incentive to cultivate more land. Not only can the farmer borrow money for this purpose, he can also recover the cost under the Income Tax Act.

19. Excise Tax Act

This Act exempts a number of farm items from the 9 percent excise sales tax. Included are some agricultural equipment, tractor engines for farm purposes, fertilizer, pest control products, drain tile for agricultural purposes, feeds, living animals, nursery stocks and gasoline used for farming purposes. The overall magnitude of this financial assistance is not known.

20. Prairie Farm Rehabilitation Act

The purpose of this Act is "to rehabilitate drought and soil-drifting areas and to promote up-to-date systems of farm practice, tree culture, irrigation, land utilization and land settlement that will afford greater economic security to farms and farmers in Manitoba, Saskatchewan and Alberta".

In 1969, the Prairie Farm Rehabilitation Administration (PFRA) was transferred to the newly created department, Regional and Economic Expansion. Since then, activities of PFRA have included the following programs:

(1) Land Use Program

The primary activities of this program involve community pasture management. In 1977-78, PFRA managed 97 pastures on 2.4 million acres (971,280 ha). Pasture improvement and development in 1977-78 included the following activities:

Land Improvements	Acres	Hectares
land clearing	5,000	2,024
breaking	4,800	1,943
seeding	26,000	10,522
spraying (brush control)	32,500	13,153

Water Development

excavation of 112 dugouts
enlargement of 97 dugouts
development of 32 wells
reconstruction of existing dams

Also, in 1977-78, a five-year agreement with the Department of National Defense (DND) permits PFRA to use 90,000 acres (36,423 ha) of DND land at Suffield, Alberta for a community pasture (PFRA 1978).

(2) Water Development Program

Three types of projects are involved here -- farm water supply, community projects and large projects. Both technical and financial assistance are provided. Farm water supply projects in 1977-78 totalled 8,987 at a cost of $3.9 million in federal funds. These projects usually benefit individual or neighbouring farms and include dugouts, stockwatering dams and wells.

Community projects, which numbered 2,328 at a cost of $1 million in 1977-78, consist primarily of deep community wells, but also involve development of water resources of secondary tributaries.

Large projects usually consist of developing primary tributaries for irrigation and water storage.

From 1973 to 1982, major irrigation reclamation, water storage and municipal works projects will have used $110 million in federal funds.

The PFRA does not provide financial assistance for artificial land drainage. However, reclamation activities such as the Saskatchewan River Reclamation Project (The Pas), part of a federal-provincial agreement under ARDA, required drainage works and flood control to reclaim 100,000 acres (40,470 ha) of arable land. This project received almost $2.5 million from the federal government (Elliot 1978).

21. Agricultural and Rural Development Act

The purpose of this legislation was "to authorize the Federal Government to enter into agreement with a provincial government for the joint undertaking of alternate land use projects and rural development projects in order to assist farmers with small or otherwise unprofitable units and promote the conservation of soil and water resources".

The first Agricultural and Rural Development Agreements (ARDA) covered the period 1962-1965. This was considered a pilot period during which rural area problems and the best way of solving them would be identified. In Manitoba, projects consisted of converting poor farmland to forest and recreational areas, construction of land drainage systems, construction of water storage structures and rural development activities. One major drainage project, the Grassmere Drain project, involved enlargement and reconstruction of existing drainage outlets to carry runoff waters from the area into the Red River. This activity benefited farmers whose land (about 32,000 acres or 12,950 ha) was subjected to poor drainage and periodic flooding.

In Saskatchewan, projects involved water development and conservation, drainage and flood control projects and community pasture development. The emphasis in Alberta was on irrigation, water development and community pastures. By 1965, 10 community pastures under the ARDA program were in operation.

ARDA II, the second set of agreements, covered the next five years (expiring in 1970). Programs consisted of the following:

(1) Land Use and Farm Adjustment

- Assistance for increasing the size of farms too small to be economic units.

- Acquisition of poor farm land for other uses such as pasture and forage production, recreation, wildlife, forests and woodlots.

(2) Rehabilitation, Economic and Social Development

- Rehabilitation or re-establishment of certain people in rural areas.

- Assistance for the development of new industries.

(3) Soil and Water Conservation

- Development of water resources including farm and community water projects as well as major projects.

- Land conservation and improvement including drainage.

In Manitoba, a special rural development area, the Interlake, was selected as a depressed rural area requiring social and economic development. A 10-year cost-shared (60-40) federal-provincial agreement (1967-1977), the Fund for Rural Economic Development (FRED), committed $85 million of federal funds.

One of the programs under FRED, Water Control, was designed to drain high capability cropland in order to improve the livelihood of Interlake residents. Seven land drainage systems were developed at a cost of $7 million.

The third set of agreements (ARDA III) extended from 1972 to 1978. Programs included alternate land use, soil and water conservation, and land drainage works. This agreement also provided for greater emphasis on the development of employment opportunities for rural people.

The magnitude of federal funds provided for ARDA programs in the prairie provinces is not known. Approximately $25.9 million was spent under ARDA I and $66.9 million under ARDA II; figures for ARDA III are unknown for the prairie provinces. Figures from available sources indicate hundreds of millions of dollars for all ten provinces.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR CANADA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
1. Department of Agriculture Act	Minister of Agriculture	Domestic Agricultural Market Development Expand domestic markets for Canadian produced agriculture and food products.	Producer boards, processors, food service industry, distribution and retail trades.	Plan and implement projects for promotion and development of agricultural products.		
		Market Development-Agricultural Products Expand domestic and export sales of Canadian agricultural products.	Governments producer organizations and agribusiness groups.	Perform market analysis, research and market intelligence.		
		Agricultural and Food Products Market Development Assistance Program Encourage sustained growth for sale of Canadian agricultural and food products in export and domestic market. Contribute to an improved net income for producers of agricultural products.	Canadian companies, associations, universities and similar entities. Qualifying activities: market feasibility and development projects, marketing capability projects.	Contributions made to cover expenses.		
		International Trade - Agricultural Products Maximize Canada's agricultural export and domestic market potential.	Governments, producer organizations and agribusiness groups.	Analyze and develop Canada's position and strategy in multilateral negotiations and bilateral trade problems.		
		Agricultural Exhibition Loans Provide multi-purpose buildings for year round activities.	Exhibition corporations recognized under a Provincial Agricultural Associations Act.	Capital loans up to 90% of approved capital cost. Term maximum 30 years.		
		4-H Clubs Assistance Support the development of 4-H Club members and junior farmers.	Council of 4-H Clubs and provinces.	Provinces are reimbursed up to 50% of their expenditures for support to 4-H Clubs		
		Agricultural Production Research Increase efficiency and productivity of Canadian agriculture.		Research on soil, crops, animals, agriculture engineering and general biology carried out at 26 research institutes and at a number of substations and project farms in all 10 provinces.	$4 million spent on contract agricultural research.	Develop mutually acceptable research projects e.g., zero tillage.
2. Farm Products Marketing Agencies Act	Minister of Agriculture	Farm Products Marketing Agencies	Agricultural commodity groups, provincial producer groups and marketing bodies.	National agencies or boards may be set up for any agricultural commodity that cannot be marketed effectively under the jurisdiction of individual provincial boards. Grants may be provided.		
3. Agricultural Products Marketing Act	Minister of Agriculture	Agricultural Products Marketing Provide provincial marketing boards or agencies with authority to control marketing of their products outside their province.	Marketing boards	Federal government delegates powers to provincial marketing boards e.g., right to collect levies to permit regulation of products produced in a province and marketed outside.		
4. Agricultural Products Board Act	Minister of Agriculture	Price Support Purchase agricultural commodities that are in a surplus supply position.	Farmers producing named or designated commodities.	Canadian agricultural products purchased by Board to provide price support to Canadian producers.		

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR CANADA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	EWS INFLUENCE
5. Agricultural Products Cooperative Marketing Act	Minister of Agriculture	Agricultural Cooperative Marketing	Producers of agricultural products sold under a cooperative pooling plan.	Initial payments are guaranteed to producers.		
6. Farm Credit Act	Minister of Agriculture	Farm Credit Corporation Lending Program Provide long-term mortgage credit to assist farmers in establishing profitable farm businesses.	No maximum age limit. Must be farming.	Type I loans: Maximum loan $100,000 or 75% of appraised value of land and buildings.		
			Under 45 yrs of age. Must be farming.	Loans: Maximum loan $100,000 or 75% of appraised value of land, livestock and equipment.		
			Under 35 yrs of age. Must be farming.	Type II loans: Maximum $150,000 or up to 100% of market value of land, livestock and equipment.		
			Under 35 yrs of age. Must demonstrate that principal occupation will be farming within 5 years.	Type III loans: Maximum loan $150,000 or up to 100% of market value of land, livestock and equipment.		
7. Farm Improvement Loans Act	Minister of Agriculture	Farm Improvement Loans Provide for short and intermediate term loans to farmers for improvement and development.	Bonafide farmers. Need not own farm but must live on the farm and operate it.	Guarantees loans made by commercial banks and approved lending agencies. Maximum overall limit outstanding to farmer $50,000 and reasonable down payment.		
8. Farm Syndicates Credit Act	Minister of Agriculture	Farm Syndicates Credit Program Provide capital to syndicates or groups of farmers for machinery, buildings and equipment.	Three or more farmers organized into a syndicate for joint purchases.	Syndicates may borrow up to 80% of cost. Maximum $15,000/member or $100,000 whichever is less.		
9. Canadian Wheat Board Act	Minister of Transport	Prairie Grain Advance Payments Program Make cash available to prairie grain producers pending delivery through commercial channels.	Canadian Wheat Board permit holders with grain in farm storage awaiting delivery.	Interest-free cash advance payments to a maximum of $15,000 on application for wheat, oats and barley.		
		Initial Payment Guarantees All CWB permit holders are guaranteed initial payments on wheat, oats and barley.	All CWB permit holders.	Initial and subsequent payments are based on overall grain sales and expenditures in a crop year.		
		National Feed Grains Policy Provide a fair and equitable price for feed grains across Canada. Encourage growth of grain and livestock production according to natural potential.	Grain and livestock producers.	A national market for feed grains, assurance of supplies for domestic users. A price guarantee to feed grain producers for commercial sales to non-board market. Coordination of transportation and stocks to meet domestic and export requirements.		
		Grain Quota Allotment System Market grain grown in Canada in an orderly manner. Manage grain supplies in line with market requirements.	Canadian Wheat Board permit holders. Domestic and foreign buyers.	CWB is the sole marketing agency for prairie wheat, oats and barley marketed internationally and sold domestically. It also controls movement of, but not sales of, rapeseed, flax, rye and domestic feed grain.		Determine: (1) extent of habitat loss resulting from quota system, (2) possibility of amending system.

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES

RELATING TO AGRICULTURE FOR CANADA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
10. Two-Price Wheat Act	Minister of Agriculture	Two-Price Wheat Policy Stabilize wheat prices and guarantee producers a floor price in line with prevailing costs of production. Protect consumers against the effect of high world wheat prices.	CWB producers and "interested parties" marketing grades of wheat used for domestic human consumption.	Guarantees floor price of $4.00 per bushel for wheat used domestically.	$19.9 million paid to prairie farmers in 1977-78.	
11. Western Grain Stabilization Act	Minister of Agriculture	Western Grain Stabilization Protect prairie grain producers from large unexpected decreases in income caused by a fall in grain prices, a substantial reduction in marketing and an increase in production costs.	Grain and oil seed producers holding CWB permit books.	Stabilization payments paid to participating producers whenever the eligible net cash flow falls below the previous five-year average by more than 1%. Participating producers pay a levy of 2% of gross cash receipts to a maximum of $500 per year. The government contributes an amount double the producer levies.	Producers contributed $60 million and federal government $120 million to the fund in 1978.	
12. Agricultural Stabilization Act	Minister of Agriculture	Agricultural Stabilization Stabilize market prices of farm products to achieve a sound viable agricultural industry.	Farmers producing named or designated commodities.	Producers are guaranteed a return on named commodities of at least 90% of the average price over the previous 5 years plus cost of production factor. Support prices are fixed annually.	In 1977, Manitoba farmers received $1.4 million for cow-calf stabilization. Over 18-year period, more than $2 billion paid out in deficiency payments to all Canadian farmers.	
13. Railway Act	Minister of Transport	Crow's Nest Pass Rates Lowest freight charges for grain and flour.	Grain and flour shipped by rail from any point in Canada west of Thunder Bay to Vancouver or Churchill.	Freight rates on all grain and flour are fixed at Crow rates (Chapter 5, Statutes of Canada 1897).	Estimated to be $350 million annual savings to farmers.	
14. Canadian Dairy Commission Act	Minister of Agriculture	Direct Subsidy Payments Supplement market returns to encourage efficient production of milk and cream.	Industrial milk and cream shippers.	Subsidies to producers on milk or cream.	In 1977, $10.1 million to Manitoba producers.	
15. Destructive Insect and Pest Act (being replaced by Plan Quarantine Act)	Minister of Agriculture	Compensatory Payments Compensation for specified losses resulting from action by the government to prevent the spread of destructive insects, pests and diseases.	Farmers	Compensation not to exceed 2/3 of value of plant or other matter destroyed.		
16. Crop Insurance Act	Minister of Agriculture	Crop Insurance Protect against crop loss.	Farm owners and operators. Crops specified under program.	Federal government pays 50% of administrative costs plus 25% of premium where province pays all administrative costs. Loans or re-insurance to provinces when indemnities paid to farmers greatly exceeds premium income and reserves accumulated.	$48.3 million contributed to provinces in 1975-76.	
17. Prairie Farm Assistance Act	Minister of Agriculture	Prairie Farm Assistance Assist farmers in the spring wheat area of Canada in the event of a crop failure.	Farmers in crop failure areas. Not eligible if crop is covered under a provincial insurance scheme.	Maximum assistance $4 per acre on one-half the farmer's cultivated land up to a maximum of 200 acres.		

SUMMARY OF LEGISLATION, PROGRAMS, POLICIES AND OBJECTIVES
RELATING TO AGRICULTURE FOR CANADA

LEGISLATION	MINISTER RESPONSIBLE	POLICY, PROGRAM, OBJECTIVE	ELIGIBILITY	ASSISTANCE	MAGNITUDE	CWS INFLUENCE
18. Income Tax Act	Minister of Revenue	Income Tax Act and Amendments Provides for a number of benefits to farmers (only one is indicated here).	Farmers	Any amount paid for clearing land, levelling land or laying tile for drainage is deductible.		Investigate possibility of amending the Act to provide: (1) incentives for maintaining habitat (2) check-off system for voluntary contribution for wildlife habitat.
19. Excise Tax Act	Minister of Revenue	Excise Tax Act Provides exemptions for farmers and agribusiness groups.	Farmers and agribusiness groups.	Exemptions include feed supplements for poultry and livestock, material used in grain and seed cleaning machines and some agricultural equipment.		Change Act to provide CWS with a means of generating revenue to fund habitat retention programs.
20. Prairie Farm Rehabilitation Act	Minister of Regional Economic Expansion	Prairie Farm Rehabilitation Administration Regional economic development. Provide for rehabilitation of areas subject to drought and soil drifting.	Prairie Provinces	Develops and operates community pastures, supplies free seedling trees to farmers for shelterbreaks; develops water storage and irrigation facilities and undertakes planning, survey and construction work for large water projects.	1977-78: Community pastures 2,405,381 acres ($8 million); Water development 8,987 farm projects ($3.9 million), 2,328 small community projects ($1 million); 1973-82: Major irrigation reclamation, water storage and municipal works projects ($110 million) which represents federal share of costs.	Determine extent of habitat loss on community pastures. Continue to work with PFRA pasture managers and develop habitat for migratory birds where possible.
21. Agricultural and Rural Development Act	Minister of Regional Economic Expansion	Agricultural and Rural Development Program Provides for the rehabilitation and development of rural areas in Canada.	Rural areas with regions-in-need.	Cost share with provinces projects for more efficient use and economic development of rural lands or pay provinces costs accrued by them to achieve those ends.	First federal-provincial ARDA agreements (Alta, Sask and Man) from 1962-65 involved $25.9 million of federal funds; the second agreements from 1965-70, $66.9 million; the third agreements from 1971-75 (some programs continued until 1978), $ unknown.	Determine net habitat loss resulting from ARDA programs. Investigate possibility of legislating mandatory screening of all federal provincial projects affecting migratory bird habitat.
Department of Agriculture Act	Minister of Agriculture	Extension and Information			95,000 letters, 275,000 telephone calls, 3.3 million copies of publications distributed.	Investigate cooperative and extension opportunities.

DISCUSSION

One of the main reasons that agriculture has been extremely successful on both a federal and provincial scale is the fact that agriculture is enshrined in the BNA Act as a shared responsibility. Both the federal and provincial governments have been committed to working for the well-being of agriculture. Policies, programs and activities of the federal department of agriculture have resulted in annual expenditures over $700 million in all 10 provinces. An additional $1 billion has been spent annually on agriculture by other federal departments (Regional economic Expansion; Industry, Trade and Commerce; Transport Canada; Manpower and Immigration; and Finance). Provincial departments of agriculture in Alberta, Saskatchewan and Manitoba spend annually in excess of $170 million.

The basic component of agriculture is the private landowner who provides the agricultural products for the nation. His livelihood is dependent on his output, consequently, market place economics dictate what products he will produce. Products which have a high overhead cost are discarded in favour of products with less overhead. In order to achieve a balance in agricultural products, governments intervene in market place economics by providing incentives to produce commodities with high overhead expenses. These incentives, reflected in federal and provincial legislation and policies, play a key role in the rate at which habitat is lost.

The "intrusion" of the federal government into the market place has created the above situation because only certain crops are required for export. Prior to the 1950s, the federal government was not involved to any great extent in the agricultural activities of farmers.

Because the traditional family farm existed, habitat was relatively abundant. Since then, the number of family farms has steadily declined and the rate of habitat loss has accelerated.

The major bulwark of the family farm is the concept of land ownership. Much of North America was surveyed to facilitate settlement by individual farm families on their own land. Canadian farmers have always owned a large percentage of their land and few have chosen to farm for any extended period on rented lands. Farmers were traditionally reluctant to borrow money and were quick to pay off their debts. The family farmer traditionally owned all his assets and remained debt-free out of fear of losing all his assets as a result of indebtedness. Another integral feature of the family farm was the freedom of decision making. Being one's own boss was one of the desirable features of the family farm, i.e., what to seed, when to seed, and when to sell. A farmer who wanted to be successful just worked longer and harder. Because the traditional family farm was organized as a single proprietorship and the farmer owned his own land, there was no need for sophisticated business arrangements. Essentially, this was largely the situation prior to 1951.

Since 1951, there have been some very marked changes in the family farm concept. The basic tenet of land ownership still remains although a greater proportion of farmers now rely on rented land. In addition, farmers have made increased use of borrowed capital. There are several reasons for the trend to increased reliance on borrowed funds:

(1) modern technology has reduced the production risk substantially, thus permitting operators to feel more secure in expanding their operations on borrowed funds,

(2) the minimal personal capital investment required for

expanding an existing farm unit generates returns significantly in excess of the cost of borrowing, and

(3) investment in land, the major cost of expansion, can provide a hedge against inflation as well as a capital gain.

Farmers do not have as much freedom of choice in the marketing of their products. Marketing boards, supported by a (majority) of farmers now govern production quotas. Consequently, a farmer's choices are limited -- he can purchase additional quota for some commodities and expand, or if he cuts back, risk losing his quota. The choice is generally to expand and increase his standard of living. Although the majority of Canadian farms are still single proprietorships, partnerships and family farm corporations are becoming more prevalent. These have emerged as a result of tax laws and increased capital requirements to maintain and operate viable farm units.

Corporations are not interested in the aesthetics of the environment, but in the bottom figure of their balance sheets. To accomplish this objective (greater net returns), more land is brought into production. Both the federal and provincial governments have encouraged this type of growth. Government agencies provide the largest source of long-term credit available to farmers. These sources represented 88 percent of all long term credit in 1974 (Ward 1978). In 1975, $700 million was required to pay interest charges on private farmland. Today, interest charges on borrowed capital represent the largest portion of production costs associated with farming.

Farmers today cannot afford to leave habitat for wildlife or migratory birds. Land is an expensive commodity that must be paid for. Whether the farmer grows wheat or migratory birds, the production from

his land must pay his mortgage as well as provide a return on his investment.

That the federal government is committed to expanding Canadian Agriculture is an understatement. The goals of agriculture are geared to contribute towards Canada's national goals, some of which are rising real income, equitable income distribution, improved quality of life, as shown in Appendix I (Agriculture Canada 1977). Approximately one-third of total federal expenditures on agriculture are direct payments (subsidies) through commodity programs. Assistance in producer financing has steadily increased in recent years.

Federal financial assistance along with that provided by provincial governments now enables a farmer under 35 years of age to borrow approximately $250,000. Storage and freight assistance (Crow Rate) have accounted for 15 to 20 percent of total federal expenditures on agriculture in recent years. Expenditures on trade promotion towards market development, which in turn provides incentives for increased production, increased from $2.4 million in 1965-66 to $29.8 million in 1975-76.

Agriculture lists as one of its broad goals, conservation of the resource base. Although soil quality in Canada's agricultural regions has decreased significantly, there is little in terms of significant legislation or programs to indicate that this is a concern. Rather, agricultural programs and policies appear to have been developed without considering the long-term environmental implications on the resource base. In the short term, Canada may achieve its agricultural goals, i.e., dependable food supply, fair level of producer returns and improved quality of rural life, but it will be at the expense of the resource base.

CONCLUSIONS

1. There is a staggering number of federal and provincial legislative Acts, policies and programs that lead to habitat destruction.

2. The Departments of Agriculture (federal and provincial) control a substantial number of programs that promote and encourage habitat destruction.

3. Subsidies provided by federal and provincial governments and cost-shared agreements between federal and provincial governments facilitate the implementation of agricultural programs. These subsidies and cost-shared agreements, which total approximately $1 billion annually in prairie Canada, will continue to exert a significant influence on the rate of expansion of agricultural activities which encroach on habitat.

4. Most policies and programs developed by the Department of Agriculture (federal and provincial) show little or no consideration for the long-term environmental consequences of their policies and programs.

RECOMMENDATIONS

1. CWS should select key pieces of federal and provincial legislation for more thorough investigation and should concentrate on investigating the following federal agriculture-oriented legislation to determine if programs of major detriment to wildlife habitat can be modified:

   (a) Department of Agriculture Act

   (b) Wheat Board Act

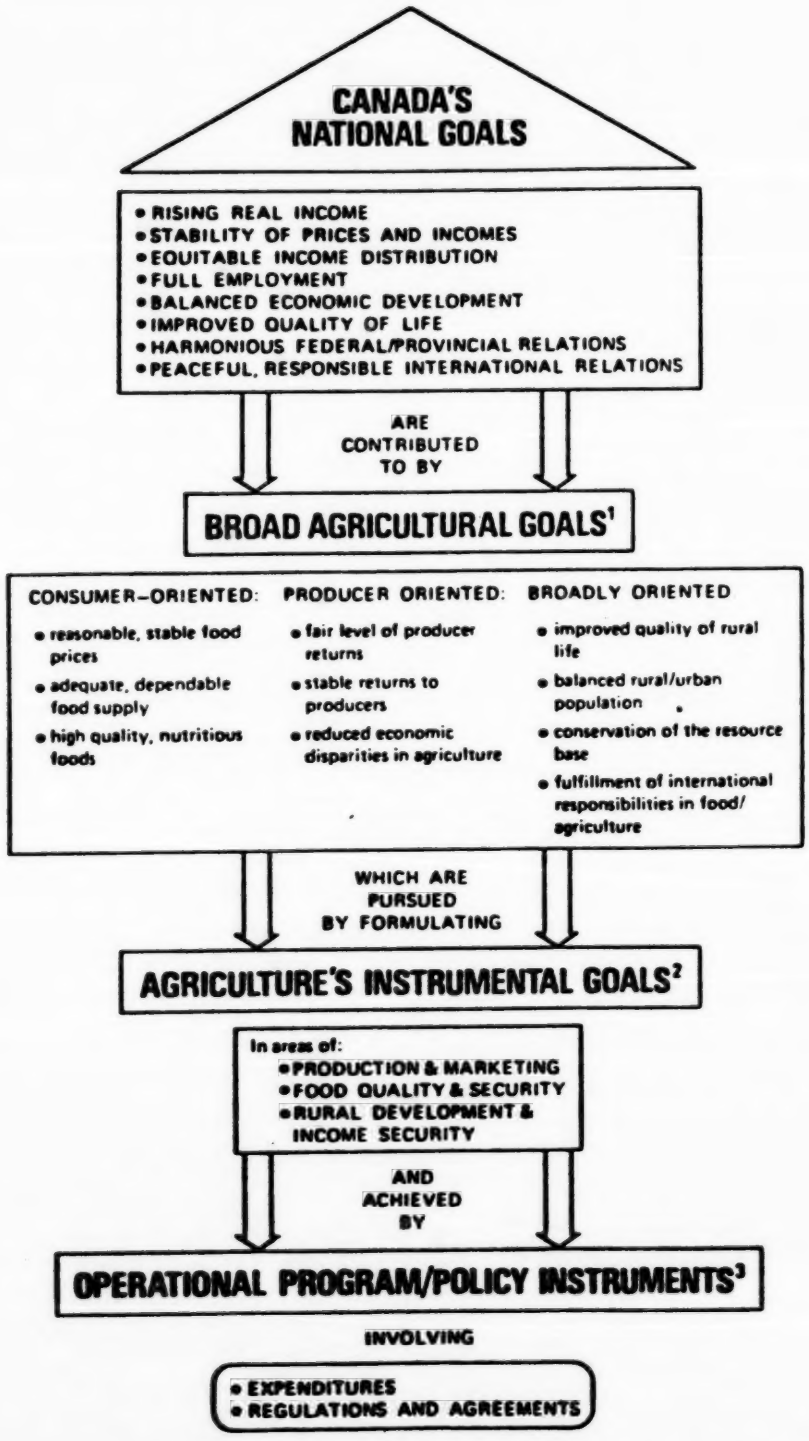
   (c) Department of Regional Economic Expansion Act

   (d) Income Tax Act

2. CWS should initiate discussions with agriculture and concerned organizations to develop alternate courses of action to influence legislation and programs that have a negative impact on wildlife habitat.

3. CWS should promote a greater understanding and awareness of the need for responsible land use.

APPENDIX 1


CANADA'S NATIONAL GOALS
• RISING REAL INCOME
• STABILITY OF PRICES AND INCOMES
• EQUITABLE INCOME DISTRIBUTION
• FULL EMPLOYMENT
• BALANCED ECONOMIC DEVELOPMENT
• IMPROVED QUALITY OF LIFE
• HARMONIOUS FEDERAL/PROVINCIAL RELATIONS
• PEACEFUL, RESPONSIBLE INTERNATIONAL RELATIONS
ARE CONTRIBUTED TO BY
BROAD AGRICULTURAL GOALS[1]
CONSUMER-ORIENTED:
• reasonable, stable food prices
• adequate, dependable food supply
• high quality, nutritious foods
PRODUCER ORIENTED:
• fair level of producer returns
• stable returns to producers
• reduced economic disparities in agriculture
BROADLY ORIENTED
• improved quality of rural life
• balanced rural/urban population
• conservation of the resource base
• fulfillment of international responsibilities in food/agriculture
WHICH ARE PURSUED BY FORMULATING
AGRICULTURE'S INSTRUMENTAL GOALS[2]
In areas of:
• PRODUCTION & MARKETING
• FOOD QUALITY & SECURITY
• RURAL DEVELOPMENT & INCOME SECURITY
AND ACHIEVED BY
OPERATIONAL PROGRAM/POLICY INSTRUMENTS[3]
INVOLVING
• EXPENDITURES
• REGULATIONS AND AGREEMENTS

Source: Agriculture Canada. 1977. Orientation of Canadian Agriculture -- A task force report.

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